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THE
COLOURED ORNAMENT
OF ALL HISTORICAL STYLES

BY ALEXANDER SPELTZ

PART I: ANTIQUITY

UNIV. OF
CALIFORNIA

THE
COLOURED ORNAMENT OF ALL HISTORICAL STYLES

WITH COLOURED PLATES FROM OWN
PAINTINGS IN WATER COLOURS
BY ALEXANDER SPELTZ
ARCHITECT

FOUR PARTS, CONTAINING SIXTY
COLOURED PLATES EACH, WITH TEXT

PART FIRST
ANTIQUITY

SIXTY PLATES IN THREE-COLOUR AND FOUR-COLOUR
PRINTING WITH A FRONTISPIECE AND ILLUSTRATED TEXT

K. F. KOEHLERS ANTIQUARIUM / LEIPZIG

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Architecture dept.

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PREFACE.

The brilliant success of my work "The Ornamental Style", published in 1904 by Bruno Hessling in Berlin, which up to this day has been printed in 26000 copies in three German and two English editions as well as in a Swedish and a French one, has emboldened me to lay before the public another similar work in chromatic printing, although I am quite aware of the difficulties of such an enterprise because of its high cost of production. For the only way of accomplishing a first class work is the employment of three-colour and four-colour printing, which naturally raises the prime cost exceedingly.

In this newest graphic method it is possible, as a consequence of the use of photography, to represent in printing exactly that, what the author intended to give. Chromolithography as well supplies good printings, but the ornaments, according to the technics of lithography, come out too exactly, too uniformly. Lithographic printings fail to reproduce the characteristic features of the original copies, they are monotonous in spite of their being resplendent with the most beautiful colours.

In accomplishing this work special attention has been paid to the possibility of easily finding the text belonging to each figure, and to a classification according to the chronology of art-history and archaeology, for this work is not merely intended to be a standard for the polychromatic ornament, but also a resource for the study of history of art and archaeology.

If this work, whose first part is herewith published and whose further parts Medieval Period, Renaissance and Rococo Style, Classicism will follow as soon as possible, contributes to revive that sense of colours lost in this our prosaic time and helps to restore to our generation that delightful rejoicing in beautiful forms and colours, the writer's end has been achieved.

A. Sp.

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INTRODUCTION.

It was in the early stone age or palaeolithic period, that man began to decorate his utensils and tools by means of a primitive art, after he had very likely passed a long time of preparation. Pictures carved in horn or bone by means of pointed stones, representing animals which lived around primitive men, have been found in several caves in France and Switzerland and exhibit in spite of their primitive character a remarkable understanding of the special features and movements of those animals. Besides that, plastic representations of the fauna of that time have been discovered, even those of human figures, though of most primitive workmanship. There are different opinions, whether there was originally the drawing or the plastic representation, but the first hypothesis seems to be correct. Even in this early period of art man began already to employ colours, as is proved by series of painted mammoths, aurochses, reindeers, and horses found in the grottos of Eyzies in Dordogne and in Altamura in Spain. Regarding the very low state of culture in that time, those paintings must be looked upon as rather remarkable accomplishments.

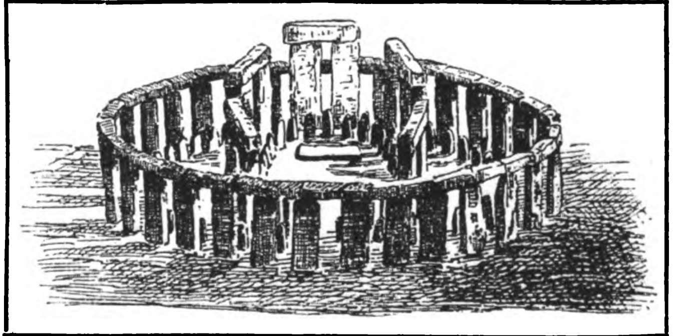


fig. 1.

In the later stone age or neolithic period man disappears from the caves and inhabits round or square huts of loam walls, covered with thatches. Towards the end of that period we find primitive dwellings in the middle of lakes, so-called lake villages or lacustrine dwellings, the inhabitants of which, however, appear to have undergone a long stagnation in their development compared with the inhabitants of the land. This period has produced those noteworthy stone buildings which are known as barrows, cairns, menhirs, cromlechs, stonehenges (fig. 1) especially in the Celtic countries. Tools are still made of stone, but in greater perfection and sharpened. It is a strange fact that the drawings of this period are less in number and decidedly inferior to those of the first period of stone age. It seems, that the realistic point of view in matters of art has been dropped and a new kind of art has sprung up, tending merely towards the use of ornaments, while in handicraft an improved sense of forms and even a taste for objects of personal adornment begins to prevail. In examining the pieces of plaited work found in the Swiss lake villages, we easily can trace in them the natural origin of ornamental designs, which have the perfect charm of the ornament, and later on have been used in other ways too. By means of differently coloured switches they have brought about even a coloured ornament. Similar designs, consisting of dots, lines, zigzags, crosses, curves, circles etc. predominate in ceramics, but it is not very likely, that the ceramic art should have taken its ornamental models from the textile art, the former being the older one. Simple as this purely linear art is, it has taken the part of a standard to the later art, for it has cultivated a taste for symmetry and a natural rhythm.

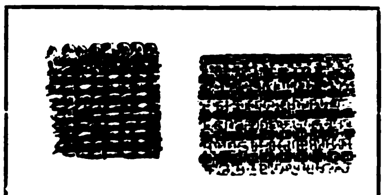


fig. 2.

Especially in Southern Europe — towards the end of that period — a sort of «band-ceramics» was developed, a continuous design with a carved strip at the top and the bottom.

The transition from the stone age to the iron age took place in various periods with the different tribes, gradually spreading from the Orient over Southern Europe to the north of it. Concerning the south of Europe, very probably the third and second millennium has been the time of the iron age. Drawings found in that time are on no account to be compared with such of the earliest period in sense of art and perfection, though they as a kind of hieroglyphics afford a distinct idea of reality. Weapons, tools, gems etc., however, make manifest an important improvement in the formation and ornamentation as well as in occasional employment of polychromy. In ornamental art a certain system was developed, mainly consisting of bulges standing together in rows, spiral lines combined with each other more or less artistically, further strings, zigzags, circles etc. In this way a style came into existence, which during a millennium predominated in the whole of Central Europe and which in history of art erroneously has been termed geometrical style.

Surely, the term geometrical ornament may be explained in two ways. Either we understand by it an ornament which apparently consists of geometrical figures, or an ornament which has been constructed by means of geometrical principles. If somebody, speaking of the geometrical ornament of the last period of prehistoric art, means to denote the first version, no doubt he is right, but not, if he implies, that at the same time the ornament has been planned on the principles of geometry. As there are no authentic contemporary documents of the stone or iron age of Europe, it is very difficult to state the precedence of that ornament said to be geometrical. But there are still tribes existing, who have not yet come to the condition of the iron age, and here there opens a possibility of searching for the origin of this ornament, though the cours of development of the still existing races is very different to that of the prehistoric tribes of Europe. To modern men it is an easy task to construct an ornament by putting together geometrical figures in rhythmic order, but that was otherwise with prehistoric men, who hardly could have any knowledge of geometrical figures. On the contrary, we must presume in consequence of certain scientific investigations in primitive races, that the ornaments called geometrical in history of art are nothing else but realistic imitations of the shapes of animals, plants and things of every-day use, which in course of time have been transfigured into geometrical forms. With this hypothesis Dr. Karl von den Steinen in his observations in the country of the Central Brazilian Indians, Stolpe in his observations of the art of the Polynesian tribes, Preuss in his observations in Kaiser Wilhelmsland, Abbé Breuil in his essay «La dégéneration des figures d'animaux en motifs ornamentaux à l'époque du renne» thoroughly agree.

According to the judgement of Karl von den Steinen and those of many other experts the Bakairi ornament in fig. 3a represents the scale-pattern of a certain fish ‹Mereshu-fish›, fig. 3b the pattern of the bats, fig. 3c the scale-pattern of another fish, fig. 3d the uluri, a triangular waistcloth. The fact, that all these figures are filled in with black, strengthens the impression that they have been taken from a concrete object. These verbal informations certainly must overthrow all ever so acute theories on the prehistoric geometrical ornament, the more, as they have been obtained from the makers of the ornaments themselves or their contemporaries. Is not e. g. the volute, which we find employed so often in prehistoric art and even later on in historical art, very likely to be an imitation of that spiral line which we see in so many chonchifera, as snails etc., and which already has been the model for the Ionic capital?

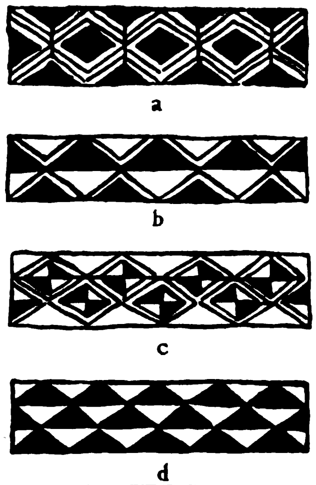
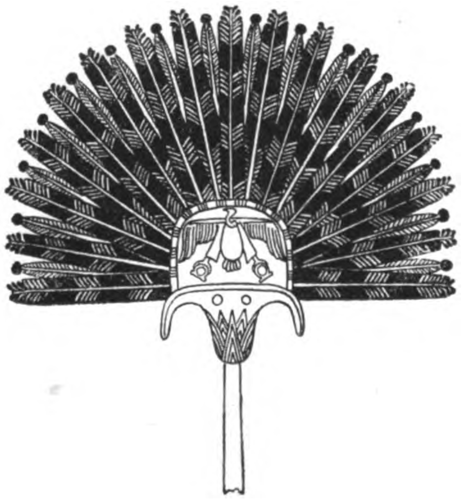


fig. 3.

It is more likely that the artists of the stone age have taken their sketches from the direct study of nature instead of composing their ornaments artificially of geometrical figures, be they ever so simple. And furthermore it is to be supposed that there have been copyists either at the same time or afterwards who have copied those originals, and in doing so have deformed them in such a way, that originally purely naturalistic drawings at last have been changed into purely ornamental motives. As well as we can trace in still existing primitive races the origin of their whole ornamental art, as well must it be possible to find the origin of the so-called geometrical ornament of prehistoric art. The point is, the rhythmic figures occuring there are geometrical figures to our eyes, but were not then, being deformed or distorted naturalistic pictures.

There is reason to believe, that the development of art has progressed from the naturalistic to the geometrical motive, for the ornament cannot be a primitive thing neither in its principles nor in its mode of application. It must be the result of an object or the naturalistic drawing of an object. Even if we admit, that the Peruvians at the time of the discovery of America have been much more cultivated than the modern Indians in Central Brazil, where Dr. Karl von den Steinen made his studies, it is almost sure, that their ornament has had the same origin as that of the modern Indians in Brazil. The advanced textile art of the Peruvians does not make it likely that the figures exhibited in their tissues are only the produce of an inferior artistic ability, but that of a conventional style of representation.

The rise of this sort of ornament out of the original naturalistic ornament is easily to be traced in the remains found in the last few decades in the isle of Crete. ⟨See: The Aegean Ornament.⟩



The prehistoric Ornament.

Plate 1. Objects from the Tombs of Ancona in Peru.

(A. Stübel und W. Reiss, Das Gräberfeld von Ancona.)

Figs. 1, 5, 14. Spindles of hardwood with earthen cylinders.—Figs. 2, 4, 6, 12. Scarfs, also used as head-gear.—Fig. 3. Pearl necklace.—Figs. 7, 9. Painted earthenware.—Figs. 8, 10, 11. Hand-bags.—Fig. 13. Piece of a painted earthen vessel.

Plate 2. Tissues from the Tombs of Ancona in Peru.

(A. Stübel und W. Reiss, Das Gräberfeld von Ancona.)

Figs. 1—11. Tissues and embroideries of cotton and wool.

The Egyptian Ornament.

Egyptian Painting.

Until now it was impossible to find any forms of art, from which the Egyptian art might have taken colours or forms; it must, therefore, be looked upon as an absolutely original art. On the contrary, it has served as a model for the forms of art to very many other nations, especially to the Achaeans and Greeks. The objects found lately in the isle of Crete, at Mycenae, Tiryns etc. have revealed the transition form from Egyptian to Greek art in a most decisive manner.

The oldest Egyptian wall-painting which is known to us, being on a level perhaps with the art of the now existing Central African tribes, was done in black, white and red, and represented the life upon the Nile in rather primitive drawings. It showed a strict schematism, which is to be traced through nearly all the periods of Egyptian art. This schematical art we may term court-style. Besides it, there has existed a more realistic popular style for inferior personages. Egyptian painting was either plain or relief painting, and the Egyptian relief must be reckoned to the art of painting, for it was not intended to represent sculpture work, but simply distinct outlines of paintings. Those outlines were mostly carved in, so that the picture was on a level with the surface of the wall; sometimes however we find also the background engraved, the picture in this case resembling a bas-relief. At any rate the style of drawing and the execution of painting were the same. Paintings which were not to cost very much were done in the cheap way of plain painting, whereas the outlines of a work that were to last were carved in, and only extremely luxurious works were made projecting from the background. Even nowadays we are able to see, that in most Egyptian works of art the special kind of painting was chosen according to the available means.

Very strange is the kind of perspective employed by the Egyptians in representing human figures, or rather the absence of any perspective at all. Every part of the body is represented as it shows itself most characteristically. Head, arms, legs and feet are always represented in profile, eyes, shoulders and chest en face, the lower part of the trunk in half side-view, the hands invariably show their backs with visible fingernails, whereas the feet are drawn from the inner side so as to avoid the difficulty of shaping the toes.

Moreover this schematic mode of representation was subject to various principles of style, e. g. outstretched arms and legs were always opposite to the spectator, perhaps in order to maintain the distinctness of the drawing. Besides, the said court-style required, that all persons represented should look to the right hand side, and in case that was impossible, the figure was simply turned over with all its details. This strict schematism seems to have been laid down as a principle already in the prehistoric period, as it is to be noticed in the oldest monuments. We must consider, however, that the artists of the earlier times have not been quite so hampered in by the court-style as those of the later epochs; they were still experimenting.

By the thorough reformation in religion and art under Amenophis II. Echnaton the court-style was repressed, and a more popular art was elevated to the rank of Art of State. Yet the reformations of this sovereign were of so gigantic a nature, that they could not last very long, and already under his successor Haremheb ‹1350 – 1315› a heavy reaction restored the former conditions. Schematism again became the prevailing form of art, pure originality disappeared, and free artistic aspiration vanished away. Only the technique of painting had derived advantage from these changes, as the reliefs in the temple of Setho ‹1315 – 1292› clearly show. The main employment of painting in Egypt was the decoration of walls and ceilings, columns, capitals, grooves, channels etc. In many tombs of the pyramids the walls were covered with rosy red polished granite, which in most cases was varnished with a coloured glazing, while the hieroglyphs were painted with opaque colours on the rough background. But here, however, we find already occasionally coloured plates of faïence, about 2—3 cm in size, as wall-covering, probably the first occurence of tessellated walls. Walls of sandstone or bricks were plastered with stucco, which was impregnated with a certain kind of varnish. Even paintings on wood or linen always had a thin ground of gypsum. The paintings on the shafts of columns and on capitals, smooth in the beginning, must in later epochs give way to hieroglyphic reliefs with painted reedings at the bases of the columns. Gradually all parts of architecture became painted, whereas in the earlier periods contrasts existed between painted and unpainted surfaces.

The Egyptian art of wall-painting was based on the idea of imitating carpets hung on the walls, as the purely decorative edgings prove; so we are obliged to assume, that there has been a textile model as well as in so many other parts of architecture of various styles. The painting of ceilings also was an imitation of coloured stuffs suspending from the ceiling, as was usual in the antique tents with coloured wooden pillars. Later on the ceilings were decorated with stars on a blue ground, probably in imitation of the starry sky, or with eagles, scarabs, the zodiac etc. As motives for coloured decorations as well as for plastics served the lotus flower, the attribute of Isis and the symbol of the germinating power of nature, nymphs, papyri, reed, branches of palms etc.

Just as conventional as the drawing was the selection of the colours; strong colours with distinctly marked mostly carved outlines were put side by side without any shades. The colours employed were red, blue, yellow, black, white, green, and brown. Sometimes they were applied to a black background, but generally a bright one was prefered in order to make the hieroglyphic characters more visible. Male persons were suggested in red-brown, female ones in yellow, the latter being considerably smaller. The Egyptians were so far advanced in their textile art, that they were capable of producing tissues in pronounced polychromy and even with figures in them. Besides, they managed masterfully the polychromy of glassy flux and pottery.

Plate 3. Coloured Parts of Architecture.

Fig. 1. Capital with caulicles from the isle of Philae. XVIIIth dyn. ‹Prisse d'Avennes, Histoire de l'Art Égyptien.›—Fig. 2. Capital from the Dromos. First century B.C. ‹Max Baumgärtel, Allg. Geschichte der bildenden Künste.›—Figs. 3, 4. Decorations of mouldings. ‹Prisse d'Avennes.›—Fig. 5. Bundle-pillar at Karnak. Era of Touthmès III. XVIIIth dyn. ‹Prisse d'Avennes.›—Fig. 6. Pilaster from Thebes. XVIIIth dyn. ‹Prisse d'Avennes.›

Plate 4. Ceiling-pieces and Wall-paintings.

‹Prisse d'Avennes, Histoire de l'Art Égyptien.›

Figs. 1, 3. Ceiling-pieces from Memphis. XVIIIth dyn.—Figs. 2, 4, 5, 6, 12. Friezes of flowers from the necropolis of Thebes. XVIIIth—XXth dyn.—Figs. 7, 8. Friezes of flowers from tombs.—Fig. 9. Ceiling-piece from the necropolis of Thebes. XVIIIth dyn.—Fig. 10. Portrait of the Pharaoh Mienptah-Hotephimat. Necropolis of Thebes. XIXth dyn.—Fig. 11. Ceiling-piece from the necropolis of Thebes. XXth dyn.

Plate 5. Architecture of the Rock-tombs of El Amarna.

(Griffith, Archaeological Survey of Egypt.)

Fig. 1. Painted column of the large hall of Tutu.—Fig. 2. King Parennefer and queen presenting themselves to the people from a balcony of the palace. XVIIIth dyn.—Figs. 3, 4. Ceiling-pieces from the hall of the tomb of Ay.

Plate 6. Ornaments of Wood.

(Prisse d'Avennes, Histoire de l'Art Égyptien.)

Figs. 1, 4, 6, 8. Wooden pillars from Thebes. XVIIIth and XXth dyn.—Figs. 2, 3, 10, 11.—Furniture from the necropolis of Thebes. XVIIIth and XXth dyn.—Figs. 5, 7, 9. Toilet-utensils of various ages.

Plate 7. Tissues and Jewellery.

Figs. 1, 3, 23—25. Tissues and embroideries. (Prisse d'Avennes, Histoire de l'Art Egyptien.)—Figs. 2, 13, 18, 22. Tissues. (Fischbach, Ornamente der Gewebe.)—Figs. 4—10, 12, 14—17, 19—21. Jewellery of various ages. (Prisse d'Avennes.)—Fig. 11. Tissue. Time of Amenophi II. 15th century B. C. (Anton Springer, Handbuch der Kunstgeschichte.)

Plate 8. Egyptian Ceramics.

(Wallis, Egyptian ceramic Art.)

Fig. 1. Prisoner in bas-relief. Faïence. XXth dyn. Ghizeh Museum.—Fig. 2. Bowl. Faïence, XVIIIth dyn.—Fig. 3. Ring. Faïence. Ptolemaic period.—Fig. 4. Amulet. Middle Empire.—Fig. 5. Ushabti (sarcophagus). Faïence. H. 195 mm. Ghizeh Museum.—Fig. 6. Bowl. XIXth dyn. British Museum.—Fig. 7. Vase with cover. Terra-cotta. XIXth dyn.—Fig. 8. Cartouche of Amenhotep II. XVIIIth dyn.—Fig. 9. Amulet. Faïence. XXVth dyn.

Plate 9. Egyptian Ceramics.

(Wallis, Egyptian ceramic Art.)

Fig. 1. Relief ornamentation of a chalice. Blue faïence. Found at Tunah. XXth dyn.—Fig. 2. Vase in pierced work. Blue faïence. Found in Upper Egypt. XVIIIth dyn. British Museum.—Fig. 3. Vase, to contain the mummy of an ibis. Terra-cotta. XXIIth dyn. Ghizeh Museum.—Fig. 4. Sistrum (a musical instrument). XXVIIth dyn.—Fig. 5. Silver vase. Ptolemaic period.—Fig. 6. Bowl. Green faïence. XXVIth dyn.—Fig. 7. Deep green glazed kohl-pot with the cartouche of the Royal Princess Mernub. XVIIIth dyn.

The Babylonian-Assyrian Ornament.

According to the kind of material used in Babylonian-Assyrian architecture, this style necessarily must exhibit a polychromy quite different from those of the Egyptian and Greek architecture. The stonebuildings of the Egyptians and

Greeks would have been a sheer impossibility on the banks of the Euphrates, the distances being far too large to admit the conveyance of stones. That was the reason, why pillars and columns were almost never used in architecture, and if we in spite of that fact now and then find some, they surely consist of wood covered with metal. The walls of the buildings were nearly always composed of air-dried bricks. As plaster does not protect those walls sufficiently against the roughness of the weather, it was only natural that they were covered with a more solid material. For this purpose they used either plates of alabaster with reliefs or glazed earthen plates, the ornamentation of which opened a very large field for the polychromy. Floors also were paved with baked plates.

Similar to the Egyptian the Babylonian-Assyrian art abounded in conventional forms and therefore must at last necessarily become as lifeless as that style. Usually the figures are yellow on blue or white grounds. Green is only occasionally used for objects of lesser importance, black for details, red and white for ornaments. These colours sufficed to mark out especially the patterns of garments or purely decorative details. In the earlier works of Nimrud strong dark colours are preferred, blue, white and black, while in the era of Saragon predominates a pale blue with white, yellow and orange, whereby a more elegant effect is obtained.

Plate 10. Glazed Tiles and Frescoes.

Fig. 1. Fresco. ‹Max Baumgärtel, Allgem. Geschichte der bildenden Künste.›—Fig. 2. Fresco in the palace of King Assurnâssirpol at Nimrud. ‹Georges Perrot et Charles Chipiez, Histoire de l'Art dans l'Antiquité.›—Fig. 3. Wall-decoration of glazed tiles at Nimrud. ‹Perrot et Chipiez.›—Figs. 4—6. Wall-decorations of glazed tiles from the wall of the harem at Khorsobad. ‹Perrot et Chipiez.›—Fig. 7. Similar decoration in the palace of king Assurnâssirpol at Nimrud. ‹Perrot et Chipiez.›—Fig. 8. Ornament of glazed tiles from the threshold of the palace at Kujundschik. ‹Perrot et Chipiez.›

The Phoenician Ornament.

The Phoenicians were more merchants than artists, therefore it is obvious that they could not develop an original national art. On their bold voyages through all the then known world they spread the Oriental works of applied art wherever they landed, so that they became most important as mediators. The impulses, which the Archaic-Greek art received from the Oriental art, are especially due to the Phoenicians. In addition to that, they have brought about a flourishing industry, the products of which they have propagated together with Egyptian, Babylonian and Assyrian works. Thereby they have had a widespread influence on the development of classical art. Thus the penetration of

Etruscan art with Greek elements is mainly their work. Above all was famous their glass-work, which resembled the Egyptian one, also their metal-work, especially their flat silver bowls with embossed and engraved representations arranged in zones. They are also said to have first used purple colour in dyer's art. Their own works of art exhibit a mixture of Egyptian and Babylonian elements, which, however, they had not the skill to shape into a national style.

Plate 11. Glass-work and Earthenware.

(Georges Perrot et Charles Chipiez, Histoire de l'Art dans l'Antiquité.)

Figs. 1, 2, 5, 12. Glazed vessels from Camiro, isle of Rhodes.—Figs. 3, 4, 8, 10, 11, 13, 14. Phoenician glass-vessels. Crean collection.—Fig. 6. Cyprian vase. Eugène Piot collection.—Fig. 7. Bust from Cyprus. Louvre. Fig. 9. Phoenician necklaces. Louvre.

The Persian Ornament.

In the remains of Persian art there are not very many national elements to be found. The Persians brought artisans, mostly prisoners of war, from the conquered countries into their chief towns, where they had to accomplish those magnificent buildings planned by the Persian kings. It is obvious that in this way especially Egyptian, Babylonian-Assyrian and Greek elements must creep in, which at last drove the national art, not very important in itself, into the background. While at Persepolis reliefs predominated, at Susa wall-coverings of glazed tiles were preferred, the habit probably being taken from Assyria and Babylonia. Known in this technique is a frieze of stalking lions between rich bands of ornaments, resembling the well known lion-frieze of Babylon, and a renowned frieze of striding warriors, five by five between two pillars, on a bluish green ground. Here the artist has dropped the Egyptian mode of representation, half complete view, half profile, and the garments show a freer drapery. In spite of its monotony this long frieze makes an imposing impression. These works make manifest a great technical ability and a still more flourishing sense of colours than the Babylonian-Assyrian works. Moreover, the figures are correctly arranged. But it is not impossible, that this art may have sprung up in Susa itself, as the district of Susania has had an earlier culture than that of Persi. The fact that there recently have been found fragments of columns and glazed tiles from the Alamitic period of Susa seems to justify this opinion.

Plate 12. Ornaments of glazed Tiles.

(Georges Perrot et Charles Chipiez, Histoire de l'Art dans l'Antiquité.)

Fig. 1. Frieze of archers. Glazed tiles. Susa.—Fig. 2. Frieze of lions. Glazed tiles. Susa.

The Aegean Ornament.

Aegean ceramic Art.

In Aegean art the products of ceramics are especially noteworthy, which in the isle of Crete had reached a wonderfully high state of development. The polychromic Aegean art is scarcely inferior to the Greek one. The oldest specimens of the neolithic period are fragments of black burnt clay with simple engraved figures, often filled up with a white material. Curvilinear ornaments are altogether wanting; among the rectilinear ones triangles occur most frequently with lines inside, crooked bands, comb-patterns etc. The period following the epoch named above has been called early Cretan or early Minoic period ⟨derived from Minos king of Crete⟩ and is divided into three groups, by others into two: the first and the second early Minoic style. The works belonging to the first group are painted over with black colour, the objects, engraved in earlier periods, being painted in white; besides there are vessels with shining black bands on the ground of clay. It seems that the potter's kiln was known already, but not the potter's wheel. In the second group predominate patterns of lines curved as far as to the spiral-line, done in a very durable white. Some of the vessels belonging to this group apparently have been formed by means of the potter's wheel.

Polychromy appears in Cretan art in the earlier middle Minoic period; it employs besides the traditional white a pale red, crimson, and orange for the purpose of rendering the black ground of varnish more agreeable to the eye. Some of the vessels are also decorated with ornaments, which are put on a polished bright ground of clay, sometimes, like those of Grecian make, with engraved outlines. We must regard this period as a time of transition, which is partly corresponding to the early Minoic and neolithic period, partly brings new ornaments, not perfectly developed till the late Minoic period. This period makes itself conspicuous by a fresh and vivid naturalism. Here we also come across relief-like ornaments. Either the surface of the vessel is divided into several horizontal or vertical sections, equal in size, which are all uniformly filled with ornaments, or it is decorated by a broad strip round the vessel.

The products of the later middle Minoic period ⟨Kamares-period⟩ are distinguished by an original polychromic opalescence of the colours white, red and yellow on a shining black ground of varnish. Here are always the same colours employed without considering whether they are suited to the object represented or not. The form of the vessels means, compared with the older ones, a conspicuous further development and refinement.

A conventional vegetal ornamentation with richly interlaced vegetal forms takes the place of the linear ornamentation of former epochs. The chief aim of the artists of this period was more an elaborate system of coloured lines than the imitation of nature; they neglected the drawing for the sake of the decorative and polychromic effect. In this period the natural object is worked over to such a degree, that vegetal motives become linear.

The development begun in former times having reached the highest summit of perfection, there comes a great change in the whole of Cretan art by substituting monochromy for polychromy. Like in Japanese art they begin to represent a quick impression in a lively but rather formless drawing without exact details. The drawings become life-like and striking, wanting in details, but representing by way of imitation the characteristic phases of movements. While in former periods the brilliancy of colours was the chief object of the artist, in monochromy the drawing itself became the most important feature. It cannot be denied that Egyptian motives have been brought into Cretan art, but that is by no means an imitation, as those foreign motives are perfectly and masterfully absorbed by the Cretan art.

A new element enters Cretan art in the first period of the late Minoic style by the introduction of the maritime fauna and flora. In the beginning we find a number of animals and plants drawn from nature in a strict naturalistic manner painted on the vessels; but later on those objects were copied from former works. Hereby the naturalistic motive became more and more subordinate, so that at last the manner of execution made it impossible to make out the original model. The only object recognizable was the cuttle-fish, erroneously called polyp, probably octapus vulgaris. Other models may have been the nautilus, a sea-slug, and among fish especially the dolphin, which is well known to all inhabitants of the coast on account of its cheerful nature. As ornaments of lesser importance occur corals and among plants several kinds of sea-weed.

Besides those naturalistic ornaments we come across paintings of a more conventional kind, mostly schematic representations of vegetal origin, e. g. the continuous spiral line arranged in various patterns. The arrangement of the sea-animals is the same in most of the ornaments, the painting always representing the bottom of the sea.

Recent excavations on the continent have brought to light objects of another period of art coinciding with the late Minoic period, varnished vessels from the tombs of Mycenae, which form a great contrast to the pale-painted vessels then used on the continent. The naturalistic Cretian style has spread itself even over the isles in the vicinity of Crete. Scientific studies have proved that the age of the tombs of Mycenae is coincident with that of the XVIIIth dynasty in Egypt, and that there has been communication with this country.

The second period of the late Minoic style is the so-called palace-style, in which a blackish varnish is painted over the thin covering of the vessels. The ornaments are rhythmically distributed all over the surfaces of the vessels, but without filling every empty space with an ornament. Though this style shows certain slight symptoms of decline in consequence of the exaggerated schematism, it nevertheless stands on the highest pitch of Cretan art.

Cretan ceramic art was unparallelled compared with the vessels of the continent and the Greek isles, which were painted in subdued colours. It has created that wonderful Kamares-style with its brilliant chord of colours and its unsurpassed workmanship at a time, when the artists of the continent and the neighbouring isles still painted simple patterns on technically inferior vessels. Later on, when the Cretan palaces were destroyed, Cretan art as a subordinate part of the whole was obsorbed by the unity of the Cretan-Mycenaean culture.

Plate 13. Aegean ceramic Art.

Fig. 1. Vase from Phaestos ⟨Monumenti antichi della Reale Accademia dei Lincei.⟩—Figs. 2, 5, 8, 10. Vessels from the necropolis of Hagia Tirada ⟨Kamares-period.⟩ ⟨Monumenti antichi.⟩—Figs. 3, 7. Vases from Zakeo in Crete. Bronze period. ⟨Journal of Hellenic Studies. 1913.⟩—Fig. 4. Vessel from Knossos ⟨Journal of Hellenic Studies. 1913⟩.—Fig. 6. Vessel from Mochlos. ⟨Seager, Explorations in the Island of Mochlos.⟩—Fig. 9, 12. Earthenware of the Middle Cretan ⟨Middle Minoic⟩ period from the earlier palace in Knossos. ⟨The Annual of the British School at Athens, 1902/3.⟩—Fig. 11. Primitive Cretan vessel. ⟨Journal of Hell. Studies. 1911.⟩—Fig. 13. Vessel from the isle of Mochlos. ⟨Seager.⟩

Plate 14. Cretan ceramic Art.

Figs. 1, 3, 4, 9. Vessels. Kamares-period. ⟨Journal of Hellenic Studies.⟩—Figs. 2, 5, 6, 8. Vessels. Late Minoic style. ⟨Boyd-Hawes, Gurnia.⟩—Figs. 7, 10. Middle Minoic vessels from Phaestos. ⟨Monumenti antichi.⟩

Up to a few years ago the opinion was in vogue that the beginning of the history of Grecian art must be dated from the time of the immigration of the Dorians in Greece, and that Homer's Iliad and Odyssey must be looked upon as products of the poet's imagination. One contented oneself with the supposition that there must have been a prehistoric development of Greek art. It was the task of Heinrich Schliemann to reveal a new world of art, which harmonized in all details with Homer's statements. Schliemann began, inspired by the lecture of Homeric myths, in 1868 on the site of Troy the work of his life, which should prove so profitable to the history of art. After he had found a number of fragments there, ⟨by mistake called the Treasure of Priam⟩, which he bestowed on the Berlin Museum, he went to Mycenae, where he discovered five perfectly intact tombs of princes, the contents of which opened a new world of art with a characteristic ornamentation. For the architectonic part of the excavations he had secured the assistance of Dr. Dörpfeld, and it was he, who ascertained the correctness of Homer's statements. Later on the two explorers went again to the site of Troy, where they proved by comparison with Mycenaean art, that the Troy of Homer must have been the sixth stratum of all the strata found there.

The next problem to be solved was the necessity of ascertaining the original place of this characteristic period of art, and after there had been found similar objects in other parts of Greece, the whole attention of everybody was directed to the isle of Crete.

Schliemann died early, but he was soon replaced by Arthur Evans, who began his work in Knossos, near the capital Candia, and whose explorations were continued by the British Archaeologic Institute in the east of the isle, by Italian scholars at Phaestos and by Richard B. Seager in the isle of Mochlos. Thus were found in Crete three palaces of sovereigns, some smaller estates, three town-like settlements, several antique centres of the culture of Zeus still without temples, and spacious necropolises. The great heaps of ruins they had to remove permit the conclusion that there has been more than a thousand year's continuous development from stone age up to a condition of culture which in its variety is on the same level with those of Egypt and Babylonia. Even several early Cretan written characters have been found, the deciphering of which is still eagerly looked forward to. In the meanwhile we are compelled to reconstruct the history of that epoch only by the forms of ornamentation. But even those very forms show with positiveness the existence of a homogeneous art in Greece, Crete and the neighbouring isles.

There is especially one characteristic peculiarity which strikes the spectator in this "Aegean art", the use of animal and vegetal objects of the sea as models for ornamentation, in pure naturalism at first, then in rigid and lifeless forms, the origin of which at last is only to be found by comparing studies. Besides sea-plants and corals there were used oysters, sea-stars, nautili, polyps, and later on fishes and birds. This feature of ornamentation is easily to be explained in a race whose mode of life and activity was in constant and intimate contact with the sea; it is to be considered as an independent autochthonous part of Aegean art, which does not occur in the Egyptian and Babylonian forms of decoration.

Another kind of ornament which we do not find in the earlier Egyptian or Babylonian decorations is the spiral-line, the leading motive of Cretan ornamentation. It is not altogether impossible that the volute of the prehistoric European art may be taken from Aegean ornamentation, as many-sided business-connexions have existed at remote periods, provided that it has not been developed independently out of natural objects. In considering e. g. the alterations and variations, which the polyp has undergone in the Aegean ornaments, we involuntarily raise the question whether perhaps the volute may be the imitation of a rolled up arm of a polyp. ⟨Figs. 4—8.⟩ The golden link of a necklace represented in fig. 9 has surely developed itself after the model of the head of a polyp and is perhaps even the original model of the Ionic capital, which has been employed in Phoenician and Egyptian ornamentation long before the development of the Ionic art.

There is no doubt that Aegean art in spite of its being a characteristic one has been influenced by Oriental and Egyptian elements, and this opinion is strengthened by the mutual geographical situation. So have been found in Crete Egyptian works of art signed with the royal seal of the XIIth dynasty ‹about 2200 B. C.›, and at the entrance of the large oasis of El Fayum in an early Egyptian settlement of the 16th century B. C. early Cretan painted earthenware. The time of the Aegean epoch of art is probably the middle of the third to the middle of the second millennium B. C., its cradle Crete or Caria. Later on the Cretan art has probably been carried over to the continent.

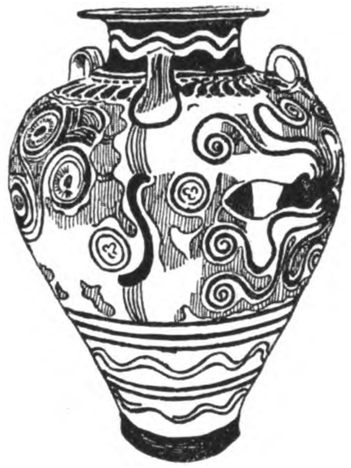
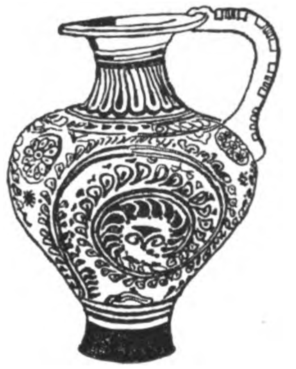


fig. 4.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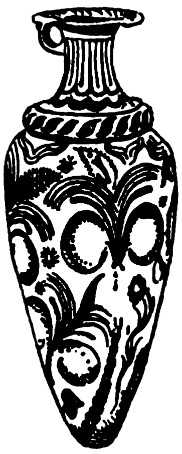
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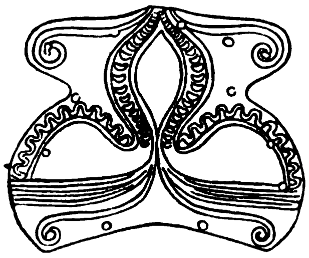
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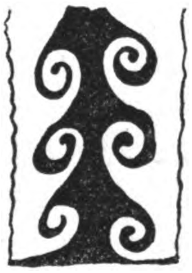
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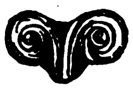


fig. 9.

Aegean Fresco-painting.

Up to a short time ago the lion-gate at Mycenae was considered the single remain of a period of art long ago sunk into oblivion. But the last few decades have given us a perfect idea of Aegean culture of art. Now we are able to see that the Aegean isles and the neighbouring coasts in the second millennium B. C. possessed a culture like the Egyptian and Babylonian ones, while Greece itself was still in a state of barbarism. The cradle of this art is doubtless the isle of Crete, whose king Minos, previously thought to be a mythical figure, now has gained a real historical shape. Though the scholars have as yet not been successful in deciphering the found inscriptions, there is no doubt that the isle has not been inhabited by one tribe, but by several ones. The very first race, at any rate, was not of Greek origin. It is supposed that the Achaeans at about 1400 destroyed the old palaces and drove the original inhabitants to the east of the isle. The invaders made themselves comfortable and built castles, and these in their turn were destroyed by the Dorians in the 13th century B. C., and so Achaean art found a premature end. But of course many elements of it have passed into the historic Greek era and there have undergone a new development.

The chief colours of Aegean fresco-painting are white, red, yellow, blue, and black, all other shades as green, light blue, light red, brown, violet, grey having only an occassional and subordinate importance. Like in Egyptian art the men are painted red, the women yellow. The original red hue of the wall has become the background of the picture; this manner of painting has lasted rather a long time in Crete. Later on the predilection for contrasts of colours prevails. In most cases red and white, yellow and blue are put together, and the ornaments are usually painted red on yellow, black on blue grounds; sometimes they are employed reversely. Ornaments on white backgrounds are mostly red, on light red backgrounds black.

In the paintings of Knossos is to be recognized a certain canon of colours, which is the same in all periods of Mycenaean art. Every decorated wall has a specially marked basement, while the rest of the surface is delimited above and below by horizontal bands of ornaments or is divided into several friezes. Here the horizontal wooden beams seem to have played an important part, vertical divisions in the surface of the wall are altogether wanting, even in the corners. A single wall does not form a chromatical artistic whole, but only an accidental part of the decoration of the whole room. This is a peculiarity of Cretan-Mycenaean wall-painting, which tends towards the utilization of the artistic advantages of the rectangular building for the forming of the interior and by way of combining the surfaces, which are too large to be overlooked at a glance, drops the possibility of homogeneous decoration and pictorial formation. It composes so to say only with regard to top and bottom, but not with regard to right and left. That is the reason why there are no real pictures in mural paintings. The upper part of the wall consists of pictorial friezes and bands of ornaments. Most of the found friezes show figures in full natural size and have above and below a small white strip so as to divide the coloured spaces from each other. The ornament appears in Cretan-Mycenaean art of painting merely as a decorative band in the function of a frame for the surfaces. The constructive origin of this system of using the parts of the wall puts the supposition of an original decoration of the walls by textile materials out of the question, the more as Cretan textile ornamentation may easily be reconstructed out of the remains of draped figures in full size. It is a pure ornamentation of surfaces with scales, intertwined wreaths, quarrels, zigzags etc. Of some importance, however, is the influence of mural painting on ceramic art, which latter does not only copy motives of fresco-painting, but imitates the whole system of decoration. Even floors and ceilings were decorated with fresco-paintings.

Plate 15. Mycenaean Frescoes.

(Kaiserl. deutsches Archäologisches Institut in Athen, Tiryns, bearbeitet von Gerhardt Rodenwaldt, Rudolf Haekel und Noel Haton.)

Fig. 1. Reconstruction of a figure of a frieze in the later palace of Tiryns.—Fig. 2. Reconstruction of a group of chariots in the same palace.—Fig. 3. Frieze of shields in the earlier palace of Tiryns.—Fig. 4. Frieze of spirals in the same palace.

Plate 16. Aegean applied Art.

Fig. 1. Sarcophagus from Haghia Tirada. (Monumenti antichi.)—Figs. 2, 4. 6. Daggers of bronze from Mycenae. (Springer, Handbuch der Kunstgesch.)—Figs. 3, 5. Adornments of gold from Mochlos. (Seager.)—Fig. 7. Necklace from Mochlos. (Seager.)—Figs. 8, 9, 10. Objects of glazed stone from Mochlos. (Seager.)—Fig. 11, 12, 13. Painted floors from Tiryns. (Tiryns, bearbeitet von G. Rodenwaldt etc.)

The Greek Ornament.

The Polychromy of the antique Architecture.

The rejoicing in the colours of the nature of the south, where primitive men lived, may at the dawn of history have been the impulse of applying those colours to the works of men. Other reasons were the necessity of protecting materials liable to decay by means of a solid covering and the desire to make inferior materials appear more valuable. The nearer man is to nature, the richer in colours are his works and vice versa, the higher his culture, the poorer the colours of his products. It is a pity nowadays, that we have reached a point of monotony of colours in regard to architecture, applied art, clothing etc., which is hardly to be surpassed. Even if we admit, that the coloration sometimes was too glaring, which is probably owing to the fact, that subdued colours were unknown, the other extreme, into which our modern architecture has fallen, an absolute monotony of colours, is still less justifiable. The only apology we could offer would be that we in our northern climates have not the rich colours of the southern nature as a model. On the other hand, one should think that our mostly cloudy sky should induce us to employ rich colours in architecture, so as to produce an opposition to its saddening influence. But just the contrary is the case. Our modern architecture is abounding in endless rows of grey houses under a grey sky. It is obvious that this grey in grey must have a depressing influence on the human disposition. This is proved by the fact that we are beginning to decorate our balconies with fresh flowers, but that is, of course, possible only during the few summer months. Why do we not try to interrupt that monotonous grey of the façades by architectonic employment of polychromy? There is no danger that the cost would be enormously raised as our modern builder knows so many simple and cheap methods of the polychromic formation of façades.

The polychromy of the antique architecture has its origin in the Orient, where the exuberant nature induced man to apply its richness of colours to his own creations. Assyrians, Babylonians and Persians amply availed themselves of the polychromy in their buildings, the air-dried bricks of which they covered with coloured tiles or plates of clay in order to protect the walls against the decaying influences of the weather, and so combined the useful with the beautiful. Those nations also have employed fresco-painting on the plaster of the walls.

Employment of polychromy we find perhaps on the largest scale in the architecture of Egypt, where the interior walls and relief-ornaments of temples, pyramids, tombs, palaces etc. were decorated with efficacious and unmixed colours. To the Egyptian his temple meant the world; its columns represented gigantic lotus flowers, papyri or palms and were painted in next to natural colours to produce the impression of a forest. Consequently the ceiling was blue with inserted yellow stars indicating the sky.

There is reason to believe that the Greeks took the form as well as the colours from the Orientals, especially from the Egyptians. But in spite of the fact that several ancient writers, Vitruvius among the rest, speak of the painting of the Greek temples, Stuart's statement, that the Greek edifices in the main had been painted, was generally doubted in 1762, and a fierce contest ensued between the followers of each of the two opinions. It was Hittorf, who in 1851 in his work "Restitution du temple d'Empédocle ou l'Architecture polychrome chez les Grecs" clearly proved the existence of polychromy on the Greek monumental edifices. By way of collecting numerous finds of different times and places he was at last successful in ascertaining the type of the polychrome Greek temple. Another representative of the opinion that Greek architecture had used polychromy was Gottfried Semper, who, however, overshot the mark by declaring that all the walls of the Grecian temple without exception had been painted over.

Thus, strengthened by the observation of excavated remains, gradually the conviction was gaining ground, that the Greek temples at least partly had been painted. The yellowish tint of the marble, however, which has been said to be painting, certainly must be ascribed to the influence of the weather or to the damage by dissolved ferric oxide. This is proved by the fact, that all objects of not ferriferous marble have remained perfectly white, and that marble very often shows different colours on the weather-side and on the sunny side. Further, there exists a kind of lichen which produces an auburn patina on marble walls. For all these reasons we may believe that the plane surfaces of the temples have not been painted, but only perhaps covered with a sort of caustic wax for better preservation, while single parts of architecture, especially such which have been of wood in the most ancient times, have been painted. An incontrovertible proof of the polychromy of the Greek temples we have in the so-called Persian rubbish or Persian wreckage, which is commented upon in the work "Antike Denkmäler, herausgegeben vom deutschen archäologischen Institut." But the most striking proofs the newest discoveries at Olympia afford, which in spite of their belonging to different periods of the Doric epoch give evidence to a certain system of principles of polychromy; for the regular occurence of the same colours on corresponding parts of architecture accounts for a conventional execution of the polychromy in Greek architecture.

There is no doubt, as mentioned above, that the Greeks have taken form as well as colour from the Egyptians, the latter, however, as a means of concealing the inferiority of the material employed and of improving the appearance of the buildings by painting in combination with sculpture. On the other hand we must not forget, that in the brilliant light of the Greek landscape, which was rich in colours itself, large masses of marble in their natural colour would have hurt the eye, so that the Greeks probably would have been led to polychromy even without the Egyptian example.

In general all details projecting from the background were painted, then the background of the reliefs itself, whereas the walls of the cella, the columns, epistyles and mouldings had the natural hue of the stone, which but rarely was covered with a sort of wax varnish. Of the Doric temple the abacus of the triglyph and the coping of the architrave were always painted, while that was not regularly the case with metopes without reliefs and the oval mouldings of the Doric column. In case the parts were not too much projecting and the annulets were painted red, the oval mouldings were ornamented by scale or leaf-ornaments. The front of the epistyle was sometimes decorated with a continuous ornamentation of tendrils or gold plates or with gilt inscriptions. Below triglyphs were fastened fillets with falling gilt drops and little green palmettes. The crowning band exhibited a delicate red or green Maeander, the triglyphs a deep azure tone. The figures and ornaments of the gable were painted in the natural colours, as was usual in sculpture works, on brown-red, blue or yellowish backgrounds. The cymae were decorated with friezes of golden leaves, the smaller parts of the oval mouldings with heart-shaped leaves, edged with red lines and furnished with ribs, on a green background. The lion's heads of the cyma, the ornaments of the acroteria and the antefixes were either painted with deep colours or gilt.

Usually the ceiling of the portico had the same colour as the walls, the edgings of the coffers of the ceiling had gilt chaplets on blue or green grounds, the horizontal surfaces a design of red Maeanders, the fillets of the oval mouldings projecting coloured leaves or egg-mouldings, the background itself golden stars on blue ground.

The earliest Greek temples, e. g. those at Assos, Pergamon, Aegina etc., being built of porous limestone or tufaceous trachyte, it was impossible to apply the colour directly to the stone. It was necessary to prepare a basis of a fine white stucco, which on some works is in a good state of preservation even now. But being rather frequently in need of repair, it was substituted by a better material, namely marble, which, as it required no special preparation for painting, soon became the exclusive material of Greek architecture.

There were two modes of applying the colours to the ground of stucco, al fresco and al secco. All was smooth and carefully worked, and the junctures were so well flushed up that they were hardly visible; a suggestion of junctures by colour does not occur in Greek architecture. Especially the gilt surfaces were most carefully planed and polished. In the oldest method the outlines were engraved into the marble, or the ornament was suggested with the chisel and the background made rough for a better adherence of the colour. Sometimes the ornaments were outlined with the brush on the smooth stone and afterwards filled in with colour, whereas projecting ornaments were directly painted. The blue and green colours were prepared with wax, but did not stick very firmly to the stone, while red always soaked deep into it. According to Pliny's account there have existed two kinds of caustic painting: the ivory painting and the ship's painting. In the first class the background round the figures was chiseled out and a covering of colour was applied by means of a slice, like email encloissonné, while in the latter class the colours were liquefied by heat, laid on with a brush and rubbed smooth with an iron tool.

In Greek polychromy the colours were put side by side unbroken, that is to say, only unmixed colours without any shades were used, blue, red, green, yellow and gold, for terra-cotta vessels also brown and black, for the parts representing flesh pink, for drapery light green and violet, mostly pastos, but also as transparent colours. The use of deep colours, probably an imitation of the Egyptian polychromy, is accounted for by the fact that most of the painted parts were at a considerable height and would otherwise hardly have produced any effect at all.

Not only the Doric, but also the Ionic and Corinthian buildings of the earlier periods were partly painted, as finds at Olympia and in the Acropolis at Athens have proved. Even that whole Corinthian capitals have been painted all over has been confirmed. At Pompeii too the capitals of stucco were as a rule painted. The employment of gold, however, has not been indisputably proved.

There is no evidence of a Roman polychromy similar to the Grecian one. The Romans tried to attain a certain polychromy by the use of differently coloured materials in combination with bronze. The same principle was now and then applied in Greek sculptor's art, but most of their works were of marble and painted. Special pains were taken to make the best of the transparentness of the marble combined with the application of transparent colours for the purpose of a lively representation of the skin. Marble figures in polychromic rooms were also painted, but there is no evidence for their being painted all over.

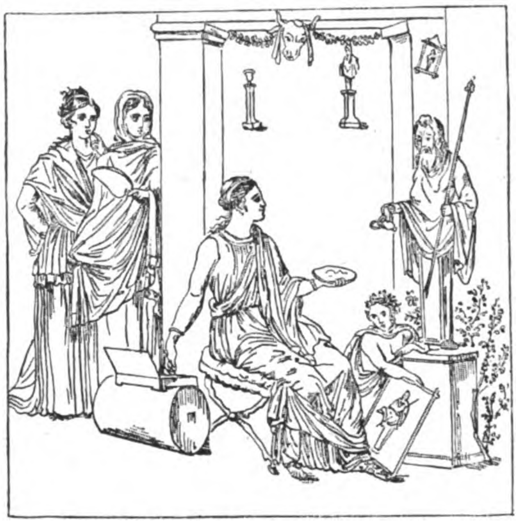


fig. 10.

At Pompeii the painting of statues also seems to have been customary, as a wall-painting from there shows ‹fig. 10›, representing a female artist, who paints a herma according to a sketch lying before her. Those painted pieces of sculpture are to be traced as far as to the Imperial Era and into it, sometimes indirectly by the fact, that certain parts are wanting which must have been suggested by painting. Especially in the Naples Museum are numerous painted works of sculpture from Pompeii. The parts representing flesh seem to have had no colours, only a varnish of oil and wax was applied to them in order to obtain an aspect like that of the human skin; but the eyes were painted, analogous to the setting in of a special material into statues of bronze.

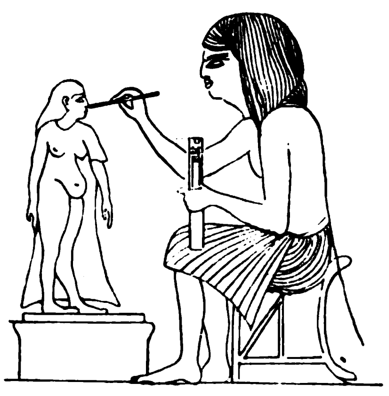


fig. 11.

In Greek architecture the flesh-parts were simply made of ivory, the drapery of gold or bronze. It is very likely, by the way, that the classical art may have taken the painting of sculptural works from Egypt. E. g., there has been found a wall-painting which represents Euté, the head sculptor of the queen mother Tey, painting the statue of the princess Beekt'eten in the tomb of the administrator of Tey. ‹Fig. 11.›

Similar to the Greek temples were painted the parts of the Etruscan temple, with figurative wall-paintings on the surfaces inside and outside, which are described by Pliny, who has personally seen them. White was frequently used. As far as evidence proves the whole timber-work of the temple has been covered with colour, partly to conceal the roughness of the material and partly to protect the wood against the influence of the weather.

Plate 17. Painted Stone-ornaments.

Figs. 1—6. Fragments of archaic architecture from the Acropolis at Athens. ⟨Wiegand, Die archaische Porosarchitektur der Akropolis in Athen.⟩—Fig. 7. Frieze of vine-leaves on the Alexander's sarcophagus at Sidon. ⟨Winter, Der Alexandersarkophag aus Sidon.⟩

Plate 18. Greek Marble-works.

Figs. 1, 3. Cymae of the temple of Athene at Athens. ⟨Archäologische Gesellschaft, Antike Denkmäler.⟩—Figs. 2, 4. Cymae of the same temple. ⟨Antike Denkmäler.⟩—Fig. 5. Cyma of the Parthenon at Athens. ⟨Fenger, Dorische Polychromie.⟩—Fig. 6. Ornament of the temple of Theseus at Athens. ⟨Uhde, Die Architekturformen des klassischen Altertums.⟩—Figs. 7, 8. Ornaments of the Propylaea at Athens. ⟨Uhde.⟩—Figs. 9, 11.—Painted capitals Athens. ⟨Antike Denkmäler.⟩—Fig. 10. Column and entablature of a round building at Epidaurus. ⟨Antike Denkmäler.⟩—Fig. 12. Ornament of the mausoleum at Halicarnassus.—Figs. 13, 14. Cymae of the Acropolis at Athens. Remote period, similar to Egyptian workmanship. ⟨Antike Denkmäler.⟩

Plate 19. Greek Marble-works.

Fig. 1. Cyma of the Phigalia Temple. ⟨Fenger, Die dorische Polychromie.⟩—Fig. 2. Antefix from the Parthenon at Athens. ⟨Fenger.⟩ —Fig. 3. Cyma of the Propylaea at Athens. ⟨Fenger.⟩—Figs. 4, 5. Painted egg-mouldings from the Acropolis at Athens. ⟨Hittorf, Restitution du temple d'Empédocle.⟩—Fig. 6. Painted moulding from the Acropolis at Athens. ⟨Hittorf.⟩—Fig. 7. Torus from the Erechtheum at Athens. ⟨Hittorf.⟩—Fig. 8. Female torso from the Acropolis at Athens. ⟨Hittorf.⟩—Fig. 9. Cyma of the Tholi at Epidaurus.—Fig. 10. Antefix from Phiglia. ⟨Fenger.⟩—Fig. 11. Capital from the temple of Themis at Rhamnus, ⟨Fenger.⟩—Fig. 12. Capital from the Parthenon at Athens.—Figs. 13, 14, 15. Details of the drapery in fig. 8.

Plate 20. Parts of Architecture restored in Colours.

Fig. 1. Capital from the northern hall of the Erechtheum, Athens. ⟨Dr. Josef Durm, Die Baukunst der Griechen.⟩—Fig. 2. Stela of the Aristeum, Athens. ⟨Fenger, Die dorische Polychromie.⟩—Fig. 3. Stela from Venice. ⟨Fenger.⟩—Figs. 4, 5. Capitals of painted marble from the Parthenon, Athens. ⟨Hittorf, Architecture polychrome chez les Grecs.—Fig. 6. Attic stela. ⟨Fenger.⟩—Fig. 7. Antefix from Phiglia. ⟨Fenger.⟩—Fig. 8. Painted Doric capital. ⟨Durm, Die Baukunst der Griechen.⟩—Fig. 9. Antefix of the Propylaea, Athens. ⟨Fenger.⟩

Plate 21. Polychromic Parts of Architecture.

Fig. 1. Capital from the temple of Hera at Selinunt. ⟨Fenger, Die dorische Polychromie.⟩—Fig. 2. Capital from the temple of Nike-Apteros, Athens. ⟨Fenger.⟩—Fig. 3. Capital from the Propylaea, Athens. ⟨Fenger.⟩—Fig. 4. Metope of burnt clay, found at Phallazalle. ⟨Hittorf et Zanth, Architecture antique de la Sicile ou receuil des plus intéressantes monuments d'architecture des villes et des lieux les plus remarquables de la Sicile ancienne.⟩—Figs. 5, 6. Mouldings from the temples of the Acropolis at Selinunt. ⟨Hittorf et Zanth.⟩—Fig. 7. Coffer of the ceiling of the Erechtheum at Athens. ⟨von Quast, Das Erechtheion zu Athen.⟩—Fig. 8. Coffer of the ceiling of the Erechtheum at Athens. ⟨Durm, Die Baukunst der Griechen.⟩

The polychromic Greek Terra-cotta.

The annealed colours of the antique terra-cotta are in a better state of preservation than those of the painted stones. In regions where marble was rare, especially at Olympia and in Sicily, very often terra-cotta was used for the covering of the wooden or stone cornices of the roofs.

The type of the Doric temple doubtless has developed out of the wooden structure. It was but natural to cover the wooden parts with terra-cotta as a protection against the influence of the weather, especially those of the coping which were very much exposed to it, while the ends of the beams and the triglyphs were protected by their covering of colours and by the projecting mouldings. The copings were given a protection by putting three-edged cases of burnt clay over the modillions and nailing them to the rafters. But as the projection of the mouldings was not sufficient to protect the columns against the weather, they began to use stone as building material, in the beginning, however, only for the columns. But even later on, when the whole temple was constructed of stone, they continued the customary manner of covering and nailed the objects to the limestone as formerly to the wood. It was not till experience had taught them that good stucco was as secure a means of preservation, that they substituted the terra-cotta plates by painted plaster. In the earliest times also the tiles for the roof had a covering of black, brown or red varnish. ⟨Fig. 12.⟩ Larger pieces were often made of impure clay and then covered with pure clay, especially the pieces for coverings. In the sixth and fifth centuries B. C. the terra-cotta was burnt lightly, later on stronger. The great variety of tiles found at Olympia permits the conclusion that they had been manufactured in various places.

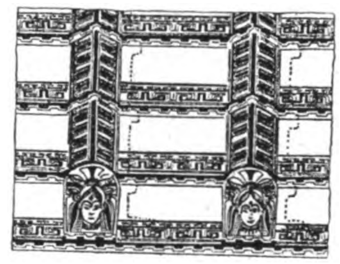


fig. 12.

The following pieces are distinguishable: the casing with its cornice and the crowning in form of a cyma or a row of tiles. These parts were often combined, but the special ornamentation of each part proves that the builders were aware of the tectonic signification of each piece. In the use of this ornamentation local particularities and a certain chronological development are to be discerned. The characteristic ornament of the casings is a design of intertwined bands, generally double, rarely single, edged with astragals, resembling the tori of the columns. The eyes, round which these bands are wound, are not arranged diagonally, but vertically; the consequence is that at the touching-lines of two bands empty wedges are formed, which are filled in with decorative palm-leaves, while in other cases the bands cover each other like wreaths without leaving empty spaces. The same reason accounts for those peculiar lotus flowers between the spiral ornaments of the marble ceiling discovered by

Dr. Schliemann in the Tholus of Orchomenos. The heights of the single or double ornaments were regulated by the heights of the decorated surfaces. The astragals edging the surfaces and those of the cymae are painted either with horizontal or transversal band-ornaments or, as at Selinunt, with scale-ornaments; the bases of the casings are decorated with coloured strips, triangles, rectangles, meander patterns etc. On the tiles at the gutter, band-ornaments are mostly to be noticed, further ornaments of rosettes and waving lines, later on solely meanders.

The visible lower surfaces of the roof-tiles were painted or decorated with meander ornaments. The crownings of the roofs were formed by cymae running all round the building or by a certain system of tiles. The horizontal line of the coping was interrupted by lion's heads and acroteria for the sake of an efficacious aspect. The formation of the cymae in Greece is simpler and more uniformly developed than in Sicily; it uses mostly anthemion ornaments.

The earlier terra-cottas have a subdued shining brownish black or brown-red varnish on all exterior surfaces. On this varnish the various opaque colours, mostly pale orange, white, brown-red, and violet, are painted; that is the reason why they keep so badly. Characteristic features of these terra-cottas are their heavy plastic forms and their simply constructed geometrical designs, as intertwined bands, rosettes, zigzags, semicircular leaves etc. The designs were engraved by means of a slice or a pair of compasses and filled in with colour. The later execution is similar, but it proceeds from geometrical to freer forms. Instead of the dark ground of varnish we find here a light yellow tone either as background for the other colours or painted between them. The design invariably shows a rhythmic succession of two dark tones, brownish black and red in several shades. In order to get a smooth surface the object was covered with a fine coating of clay, into which the design was carved. But in this period, which begins in the fifth century B. C., the plastic art is much more inferior to that in the earlier one. The terra-cottas, being covered with a coat of clay, were painted and, after the colour had soaked in, burnt; it occured but seldom that ready fired pieces were painted and afterwards burnt for the second time.

Plate 22. Painted Terra-cottas.

Fig. 1. Ornament of terra-cotta from the treasure-house at Olympia. ‹Dörpfeld, Über die Verwendung von Terrakotten am Geison und Dache der griechischen Bauwerke.›—Fig. 2. Antefix from the Acropolis at Athens. ‹Hittorf, Restitution du temple d'Empédocle.›—Figs. 3, 11. Coverings of cornices from the Acropolis at Athens. Terra-cotta. ‹Hittorf.›—Figs. 4, 6. Ornaments of terra-cotta for the covering of wooden beams. From Metapont. ‹Hittorf.›—Fig. 5. Covering of the coping. Palermo Museum. ‹Dörpfeld.›—Fig. 7. Covering of the coping. From Selinunt. ‹Dörpfeld.›—Fig. 8. Ornament of terra-cotta. From Selinunt. ‹Hittorf.›—Fig. 9. Ornament of terra-cotta. Museum of the Count of Biscari at Catania.—Fig. 10. Cyma of terra-cotta. From Selinunt. ‹Dörpfeld.›—Fig. 12. Covering of the coping. From Selinunt. ‹Dörpfeld.› Fig. 13. Terra-cotta from Tanagra. ‹Hittorf.›

Greek Vase-painting.

The art of vase-painting differs from the kind of painting hitherto mentioned in its monochromatic execution, in its want of aerial perspective, of chiaroscuro and of shading. The representations consist of more or less life-like figures systematically arranged side by side or one above the other, the scene of action is symbolically suggested. The figures are represented either by simple outlines or in silhouette, the muscles, garments and distinguishing details and ornaments within the outlines being indicated by lines. The silhouettes are either parts of the natural ochreous or variously coloured ground left free from the black glazing or are done in black glazing on the artificial reddish or ochreous ground of clay, the outlines being painted in the former case, carved in with a sharp point in the latter. But often we find both modes together; besides the black silhouettes there are sometimes unglazed colours, whereby the monochromatic painting becomes polychromatic. The employment of black contours seems to be the leading feature of the best time of that period. There is reason to believe that, though in most cases the colours have been applied with a brush, sometimes a two-pointed tool has been used, judging from the double contours occuring so often.

The colours were dull in general, with the exception of black, which was mostly glazed by way of fusion with melted metallic oxide. The quality of this glazing naturally depended on the quality of the clay and that of the colours, on the degree of heat and on the duration of the burning. This black glazing being easily fusible, it was possible to mark the outlines of the yellow figures in elaborate workmanship, whereas the white outlines on black-figured vases had to be incised.

In Greek vase-painting the following systems must be specialised.

1) Burnt black earthenware, without painting, mostly with a shiny glazing, sometimes dull, also with incised or pressed decorations or reliefs, with black or white painting on grey ground, with or without glazing, consisting of decorations, heads and figures in silhouette etc. This system was especially executed in the Apulian workshops.

In the ochreous painting, especially that of the Campanian workshops, the ornaments or figures were spaces of the ground left free from the glazing and had black lines within the contours. The yellowish, reddish or brownish colours are mostly produced by the background itself, but sometimes also by the application of sinapis-red or red ochre without glazing. Adornments and other details were sometimes suggested by white or yellow colours of white clay or yellow earth.

Black figures on ochraceous background are incised in silhouette and covered with a fine black glazing, but grounds of unclean white are also to be found. Decorations of garments or arms are sometimes dull violet and the fleshy parts of the figures are white.

2) Burnt ochraceous earthenware either in the natural colour of the clay or with red or brown glazing. The figures are ochreous on brown-red grounds, the muscles being suggested in the colour of the ground, but there occur as well brown-red figures on bright yellow grounds of ochre or black figures with incised outlines on bright, mostly glazed grounds of ochre; in this case the fleshy parts of the figures are white, parts of the drapery violet.

3) Burnt white earthenware with brownish-black figures. These vessels of ochreous clay were covered with white clay, the figures had brown or black outlines. Now and then the black figures, which are drawn in silhouette, are furnished with brownish violet ornaments. Occasionally vessels are to be found with painting in four, six and even more colours.

Plate 23. Types of Vases.

(Lau, Die griechischen Vasen.)

Fig. 1. Rhyton (drinking vessel) in form of a deer's head, with cup. Late vase-painting.—Fig. 2. Vessel in form of a woman's head.—Fig. 3. Apulian incensiere (censer). Combination of various styles.—Fig. 4. Apulian two-handled cup.—Fig. 5. Hydria or Kalpis.—Fig. 6. Lekythos (vessel to hold consecrated oil). Developed Attic style.—Fig. 7. Jug with Asiatic reminiscences.—Figs. 8, 9. Bowls with handles. Later period.—Fig. 10. Crater.—Fig. 11. Amphora.—Fig. 12. Lekythos. Combination of the black-figured, red-figured and polychromic styles.

Plate 24. Vase-painting.

Figs. 1, 3, 5. Ornaments of a Tyrrhenian amphora. (Lau, Die griechischen Vasen.)—Figs. 2, 4, 9, 10. Ornaments of Panathenaic amphorae. (Lau.)—Fig. 6. Ornament of a drinking vessel. (Lau.)—Figs. 7, 8. Friezes of Apulian vases. (Gerhard, Apulische Vasenbilder des Kgl. Museums in Berlin.)—Fig. 11. Painted vessel, representing a sphinx. From Tamon. (Springer, Handbuch der Kunstgeschichte.)—Fig. 12. Apulian vase-picture, representing cultus of Bacchus. (Gerhard.)—Fig. 13. Ornament of the neck of an amphora. (Lau.)

Plate 25. Fragments of Greek earthen Vessels.

(Antike Denkmäler, herausgegeben von der Archäologischen Gesellschaft.)

Figs. 1, 2, 3, 5. Fragments of a Protocorinthian vase. Collection of Count Don Mario Chigi-Albani in Rome.—Fig. 4. Fragment of a Tyrrhenian amphora. Corneto Museum.—Fig. 6. Fragment of a Caeretan hydria, probably originating from the Ionian east. Berlin Museum.—Figs. 7, 8. Black-figured Attic vase from a necropolis at Athens.

Plate 26. Marble Mosaics.

Fig. 1. Marble floor from Olympia. (Poppe, Sammlung von Ornamenten u. Fragmenten antiker Architektur, Skulptur, Mosaik und Toreutik).—Figs. 2, 10, 11. Marble mosaics (floors) from Eleusis. (Poppe).—Figs. 3—9. Fragments of floors from Sicily, partly in the Museum of the Count of Biscari. (Hittorf.)

Greek wooden Coffins.

During the excavations of the German Company for the Disclosure of the Tomb of the King Ne-woser-re a little necropolis near Aboukir, to the east of the pyramid of the King Ne-woser-re, was laid open, which, judging from the objects found in the coffins, is of Greek origin and dates from the era of Alexander the Great. Most of the coffins are of wood, and having been covered with dry sand, are in an excellent state of preservation. Besides those wooden coffins have been found mummy-coffins. The objects found in these latter ones permit the conclusion that the mummies are of Greek origin. Strange to say even the burial in two large pithoi ⟨large spheroid Greek earthenware vessels⟩ occurs here in three cases, similar to the mode of interment in water-pipes found in the necropolis of Dipylon at Athens. The coffins were resting 2½ m below the present surface, on a level with the pavement of the time of the Vth dynasty. The feet of the coffins are mostly sawn off in order to prevent their sinking into the earth. The feet of the corpses were turned to the west, the heads to the east. Tombstones or barrows could not be ascertained.

Plate 27. Painted Coffins from Aboukir. Era of Alexander the Great.

⟨Watzinger, Griechische Holzsarkophage aus der Zeit Alexanders des Großen,
Veröffentlichungen der deutschen Orientgesellschaft, Heft 6.⟩

Figs. 1, 2. Side-view of a coffin.—Fig. 3. Fragment of an Attic lekythos, found in one of the coffins.—Figs. 4, 5. Frontal views of two wooden coffins.

Plate 28. Greek Gold-adornments.

Figs. 1, 15. Ear-drops from Ithaca ⟨Antike Denkmäler⟩.—Fig. 2. Necklet of a reddish material, gilt. Ithaca. ⟨Antike Denkmäler.⟩—Fig. 3. Attic silver-vase with gilt reliefs ⟨Havard, Histoire de l'orfèvrerie française⟩.—Figs. 4, 5. Earrings from Athens. ⟨Antike Denkmäler.⟩—Figs. 6, 12. Earrings from Ithaca. ⟨Antike Denkmäler.⟩—Fig. 7. Drop of an earring from Athens. ⟨Antike Denkmäler.⟩—Fig. 8. Ear-drop of a priestess of Demeter, found in a tomb near Kertch. ⟨Stephani, Die Altertümer von Kertsch.⟩—Fig. 9. Necklet, part of the official garb of a priestess of Demeter, found in a tomb near Kertch. ⟨Stephani.⟩—Fig. 10. Ear-drops from Athens. ⟨Antike Denkmäler.⟩—Fig. 11. Earring from Athens. ⟨Antike Denkmäler.⟩—Fig. 13. Earring from Delos. ⟨Antike Denkmäler.⟩—Fig. 14. Necklet of gold from Ithaca. ⟨Antike Denkmäler.⟩—Fig. 16. Ring from Ithaca. ⟨Antike Denkmäler.⟩—Fig. 17. Piece of a necklet from Smyrna. ⟨Antike Denkmäler.⟩—Fig. 18. Gold plate from Kertch, representing the goddess Demeter. ⟨Stephani.⟩—Fig. 19. Chain round the neck of an amphora. ⟨Havard, Histoire.⟩—Fig. 20. Gold plate from Kertch, representing Heracles. ⟨Stephani.⟩

The Etruscan Ornament.

Etruscan Painting.

The Etruscans, like the Greeks, were fond of employing polychromy in order to render conspicuous the profiles of their buildings and the reliefs of their sculptures. They used polychromy on a large scale also for decorative purposes, and the great number of Greek vases which were imported seem to have been their models. The best known specimen of this art is the wall-painting recently found in one of the Etruscan tombs, exact copies of which are in the possession of the German Archaeological Institute in Rome. In the Vatican and in the Bologna and British Museums are also copies of it, which, however, do not in all details show the strict style of the original. This mode of painting tombs seems not to have existed all over Etruria; it appears to have been confined to certain districts as Corneto, where 50 tombs have been discovered, Chiusi ⟨about a dozen⟩, Cervetri ⟨4 tombs⟩, Vulci, Orvieto, Bieda, Bomarzo, Cosa, Orte, Veii, Vetulonia ⟨one tomb each⟩.

These wall-paintings are never painted on masonry, but on the hewn rock, either directly or on a layer of plaster. As the rocks of this region were mostly of calcareous tuff of fine grain, it was possible to paint directly on the stone. Other species of stone were covered with a thin plaster of lime and sand in order to produce a good background. In these paintings like in those of Pompeii are still to be found the traces of the instruments used in copying the outlines from the cartoons. The spaces between the contours were filled in with colour, afterwards the contours were redrawn; the spaces between the figures are in most cases without colours, they showed the yellowish tone of the plaster. The chief colours were sooty brown, minium, cinnabar, lime-wash, ochre, cupric oxide, and verdigris, often mixed in order to obtain shades.

Those paintings must not be regarded as pictures, but as decorations, which were conventional like the Egyptian ones. Besides, as they were located in dark rooms, they seem to have been intended for the light of torches and not for the daylight. The sculptures were coloured with a sticking substance, probably albumen.

These tomb-paintings always representing rooms of the houses of the deceased give us reason to believe that the houses of the Etruscans also had wall-paintings, at least Pliny, who has seen them personally, states their existence. The subjects of these paintings were mythological scenes, but also scenes of Troy, while in the tombs the leading motive seems to have been a banquet with a couch and a couple and up to nine couches with eighteen persons in various attitudes. The subjects exhibit in general a naïve realism, the persons being occupied with music, singing, dancing etc., but sometimes pictures are to be found about the existence after death, representations of Greek and Etruscan legends, portraits, landscapes, and even the picture of a complete butcher's shop occurs.

The Etruscan wall-paintings belong to various periods. Those found in the tomb of Campana at Veii, probably painted towards the end of the fourth century B. C. ⟨Veii was destroyed in 396 B. C.⟩, are badly misdrawn, but curious to say with a correct notion of the muscular system, which strengthens the impression that these pictures have been copied from Greek vases. This Graeco-Oriental style seems to have been in general vogue in Etruria since the sixth century B. C. This period is chronologically succeeded by that of the painted clay-plates of Cervetri, which exhibit scenes of Etruscan life, but do not altogether deny a certain Greek influence either. This style is gradually supplanted by the introduction of Tuscan elements, and after red-figured Greek vases had been imported (about 460 B. C.) a pure Tuscan style was at last developed. Thus an Etrusco-Grecian style came into existence as a consequence of the combination of Greek reminiscences with pure Tuscan elements, which is to be found especially in the wall-paintings of Corneto, Chiusi and Orvieto. This particular style produces towards the end of the Etruscan art purely mythological compositions, which make themselves conspicuous by correcter drawing and finer coloration. But in spite of the fact that we now and then come across a correctly drawn head, a good profile, an expressive and eloquent physiognomy, a well chosen and combined group, a well drawn drapery, the artistic execution in these paintings is but mediocre and sometimes rather careless. The frequent repetition of various subjects raises the suspicion, that there might have existed certain models, probably taken from Greek vases, which passed from hand to hand. As those paintings give us a chance of tracing the development of the Etruscan art step by step, we find that the artistical value is less than the archaeological one.

Plate 29. Etruscan Frescoes.

Figs. 1, 3, 4, 5. Painted plates of clay from Cervetri. (Martha, L'Art Etrusque.)—Figs. 2, 8. Frescoes from the tombs of Corneto-Tarquinia. VIth century B. C. (Antike Denkmäler.)—Figs. 6, 7. Painted sarcophagus of clay belonging to the family of the Seianti, found near Chiusi (Poggio Cantarello). 1.90 m long, 0.70 m broad, 0.42 m high.

Plate 30. Etruscan Gold-adornments.

Figs. 1, 6, 10, 11, 12, 14. Etruscan jewellery. Louvre. (Martha, L'Art Etrusque.)—Fig. 2. Diadem, found in a tomb near Chiusi. (Dr. Stockhausen, Der Metallschmuck in der Mustersammlung des Bayrischen Gewerbemuseums in Nürnberg.)—Fig. 3. Ear-drops of the same origin. (Dr. Stockhausen.)—Figs. 4, 7. Ear-drops. (Martha.)—Fig. 5. Fibula of gold. Louvre. (Martha.)—Fig. 8. Pin for garments. (Dr. Stockhausen.)—Fig. 9. Bracelet of bronze. (Dr. Stockhausen.)—Figs. 13, 16, 17, 18. Necklace of gold, found in a tomb near Chiusi. (Dr. Stockhausen.)—Fig. 15. Earring of filigree, head of amber. (Martha.)—Fig. 19. Bracelet of gold. Louvre. (Martha.)

The Roman Ornament.

Roman Fresco-painting.

Pliny affirms to have seen paintings older than the City of Rome, which allows the conclusion that the art of painting must be very old in Italy. Besides these national paintings there existed foreign ones in Italy, especially in the era of Augustus. According to Vitruvius' statement the fresco-paintings were executed on a threefold plaster, which in its turn was covered with a threefold coating of stucco (marmoreum granum), consisting of carefully sifted marble dust and slaked lime. Finally the uppermost layer was polished with marble dust and, being still moist, painted. This mode of painting is not to be mistaken for that of painting on dry backgrounds with adhesive substances. The sticking substances of the ancients were gum, tragacanth, animal sizing, albumen, milk, in Egypt the blood of the hippopotamus, further wax with an admixture of oil or resin, if a polish was to be produced. It also occurs in antiquity, that whole pictures with the stratum of stucco were separated and inserted into newly plastered walls. The so-called fresco secco system still employed in Italy, a sprinkling of the dried stucco till it is thoroughly moistened, was already in vogue with the ancients. For the purpose of retouching generally distemper-colours were used with strong adhesive substances as albumen, honey, milk etc.

It is not very likely, that the so much admired frescoes should have existed only at Pompeii and Herculanum; the fact is, these two towns are the only places, where they have been preserved. E. g. fragments of frescoes in the Imperial Palace in Rome exhibit the characteristic features of the transition from the second to the third Pompeian style, which, strange to say, has not yet been found at Pompeii itself. Vitruvius complains of the decline of Roman art of painting in general without mentioning the Pompeian art specially. But a certain freedom of execution and an abundance of artistic ideas is not to be questioned in the paintings of the Imperial Palace. The festoons of fruit e. g. hanging between the columns with their religious objects and waving bands are original motives which give a room a dignified and solemn aspect. A calyx decorated with sea-dragons, however, seems to be no recommendable basis for a supporting column, especially if it has altogether lost its tectonic purpose through decorations of inorganically added heads, tendrils and bands. In coloration the principle is observed to apply lighter and lighter colours the nearer they are to the top. Lights and shades of the panels are suggested by white or black lines. Spaces painted in similar or unharmonious colours are always separated by lines of another colour. Stencils have not been used, but rulers and tracings.

Plate 31. Wall-decorations from the Imperial Palace on the Palatine Hill in Rome.

(Schwechten, Wanddekorationen aus den Kaiserpalästen auf dem Palatin in Rom.)

Roman Mosaic.

Mosaic is called the reproduction of drawn ornaments or pictures by composing coloured stones, pieces of burnt clay or glass etc. in order to produce durable decorations of walls or floors. The various methods of this process are most easily to be traced in Pompeian art. The most primitive mosaic is a floor of pounded bricks and lime, into which patterns of square cut stones are pressed; the surface is smoothed and polished. In case the floor is covered all over with coloured stones the mosaic is termed tessellated work ⟨opus tessellatum⟩, which consists of stones of all colours in geometrical designs, arabesques and figures; but the development seems not to have proceeded in this order, as just the most artistic mosaics at Pompeii are the oldest ones.

The mosaic comes from the Orient. The earliest European mosaic is in the temple of Zeus at Olympia, it has been composed in the first half of the fourth century B. C. Favourite and mostly very naturally executed subjects for the floors of dining-rooms were remainders of food, sweepings etc. Another prevailing style at this period was a mosaic of pigeons sitting on the brim of a basin, with masterly executed cast-shadows. Later on even the most difficult artistic compositions were reproduced in mosaic. It seems, that these mosaic floors came into existence because in the third and second centuries B. C. the walls at Alexandria were entirely covered with marble, so that no room was left for paintings, which consequently were removed to the floor. At Pompeii, though the walls there were covered with painted stucco, they imitated this habit and probably ordered skilful workmen from Alexandria. Especially famous is a large mosaic at Pompeii which represents the battle of Alexander the Great on the Issos. During the conquests of the Romans this art spread itself in the Roman provinces, and wonderful Roman mosaics have been found especially on the Rhine. Most remarkable are the mosaic floors, which are divided by ornamental frames into circles, ellipses, squares, rectangles etc., each decorated with an ornament of plants or figures. The little pieces of marble or glass are pressed into a cement of lime and oil on a reddish mortar of brick-dust with a layer of lime and gravel beneath and on a bedding of limestone. The later mosaics are technically more perfect than the earlier ones, but not artistically. In the third century the melting of gold foil on the glass-squares seems to have become known, whereby this art achieved a still higher appreciation in those pompous times, especially as the shining gold, the brilliant colours, the many-coloured glass-pieces which later on were used instead of marble, the artificialness of the execution, and the durability of the mosaics easily excelled the perishable paintings. In this way the perfection of mosaic work in the later Byzantine art is accounted for. In the course of time the figurative representations vanish more and more and are replaced by purely ornamental decorations.

The plate-mosaic ‹opus sectile›, in which artistically hewn plates are composed in geometrical patterns, seems to have sprung up in the era of Sulla. In the Caesarean era it was chosen for walls as well as for floors, and sometimes it occurs in combination with opus tessellatum.

Plate 32. Marble Mosaics.

Fig. 1. Floor of a house at Brescia. ‹Gruner, Specimens of ornamental Art.›—Fig. 2. Floor of a Roman villa near Wiltingen.—Figs. 3, 4. Floor of a bath-room in a Roman villa near Vilbel ‹Frankfort on-the-Main›. Now Darmstadt Museum.—Fig. 5. Floor of a Roman house at Trier.—Fig. 6. Head of a swordsman in the floor of a Roman villa at Nennig.—Fig. 7. Floor of a Roman villa at Euren. ‹Vorlagensammlung der Kgl. Kunstgewerbebibliothek in Dresden.›

Plate 33. Marble Mosaics.

‹von Weissbach'sche Sammlung im Kunstgewerbemuseum in Dresden.›

Figs. 1, 4, 6, 7. Plate-mosaics. Salzburg.—Fig. 2. Plate-mosaic. Trier.—Fig. 3. Plate-mosaic. Cologne.—Fig. 5. Mosaic floor from Weyeregg. Linz Museum.—Figs. 8, 9. Floors. Trier.—Fig. 10. Floor from Vilbel near Frankfort on-the-Main. Now Darmstadt Museum.—Figs. 11, 12, 13. Floors. Verona.

Roman Enamelling.

It is the merit of the German monk Theophilus ‹mentioned in 999 in the monastery of Tegernsee› to have handed down to modern times the knowledge of antique works of applied art in his book "Diversarum artium schedula." Notwithstanding the fact that Pliny by electron understands amber, this originally Asiatic word is understood by the ancient writers as Homer etc., who did not know the amber, to signify precious stone or its substitute enamel. One found, that glass or frit, when pounded, are transformed into a glassy mass in the furnace. But as large surfaces of enamel come off and different colours run one into another, they tried to prevent this disadvantage by soldering small stripes of sheet-metal on the surfaces which were to be decorated, and so the so-called cellular enamel or émail encloisonné was gradually developed. The Franks, after establishing their government in Gaul, altered the process; they inserted jewels up to 7 mm long and 3—4 mm broad or little coloured plates of glass between the fillets. Later on they engraved holes into the surface, whereby a greater refinement in the design was obtained; but as the holes must be at least 2 mm deep, thicker metal was necessary and consequently base metals were used. Thus the émail champlevé was developed. The engraving with the graving-tool being difficult, they preferred patterns of circles, which could be carved in by means of the lathe or the punch.

The green enamel which is always to be found under the vitreous paste seems to have been used to form a better combination of the metal with the material laid on. The vitreous pastes employed in enamelling have very likely had the same combination as the glass-squares used in mosaic. At any rate the colouring material for red, blue and green was copper, for yellow and orange lead, antimony and uranium, for green sometimes chrome. But it would be a mistake to suppose, that the Romans had used special chemical compositions; they employed certain natural minerals or earths in colouring the glass without knowing the active materials in them.

Plate 34. Roman Adornments in Gold and Enamel.

Figs. 1, 3, 5—13, 17, 20—23. Roman pins for garments, gold and enamel. Wiesbaden Museum. (v. Cohausen, Römisch er Schmelzschmuck.)—Figs. 2, 4, 14, 16. Roman earrings from Pompeii. (Nicolini, Pompeji.)—Figs. 15, 24. Roman bracelets from Pompeii. (Nicolini.)—Figs. 18, 19. Roman ring from Pompeii. (Nicolini.)

The Roman-Hellenistic Ornament.

Pompeian Fresco-painting.

There is no doubt that the Pompeian artists have painted from Graeco-Alexandrian models, though certain peculiarities indicate, that their models have not been the Greek original paintings, but somewhat incorrect copies. Nevertheless we must admit, that these artists possessed artistic taste in a high degree regarding not only conception and composition, but also form and coloration. They did not attain their Greek models, it is true, but we must not forget, that the paintings at Pompeii were decorative works which offered greater difficulties, and though their coloration cannot be compared with the depth and brilliancy of our modern oil-paintings and their delicate shading, their colours have no glaring effect. Those painters proved themselves genuine artists in the life-like shaping of their objects and persons. Besides, we must consider, that their human, animal and vegetal figures were only parts of the decorations, not chief subjects as it was the case in the mythological compositions of the Greek paintings.

The Pompeian wall-paintings were always frescoes, executed in the method reported by Vitruvius (see Roman Fresco-painting). Encaustic painting never occurs, only in retouching distemper-colours or size-colours were employed. Four periods of this style succeeding one another are to be distinguished:

1) In the era of the republic the whole wall was divided into horizontal rectangles in order to imitate the facing with marble, the facing being not yet executed in real marble. As basis served a projecting socle, then came the

middle and the upper parts of the wall, divided from each other by a projecting moulding. The marble-like painted surfaces of the rectangles were projecting, the junctures deepened.

2) Later on those rectangles became more varied and larger; fictitiously projecting columns made the room appear more spacious than it really was. In the middle part of the wall persons and objects were represented in a realistic manner, the upper part was painted white and blue, representing the view into the open air, strengthened by painted parts of architecture, tree-tops etc.

3) Under Augustus, coincident with the invasion of foreign motives, especially Egyptian and Oriental ones, the imitation of marble vanishes. Now the wall was divided into three parts by small columns, pillars or objects resembling chandeliers etc. In case the wall was very broad, there was another division of the two outside parts. The inner parts were framed, executed as carpets or niches and mostly furnished with a special picture. On the side-faces were often floating figures, on the upper part fantastic figures or objects. The socle sometimes was discontinued.

4) After the first earthquake in 63 A. D., when the city was rebuilt, we notice a rococo-like decline of the art, a wild, fantastic confusion of all possible and impossible forms of architecture, vegetal decorations, figures, views of the interiors of houses and pictures with a good many drawings of men and animals. The imitation of marble re-appears, but with receding surfaces and projecting junctures.

But it would be a mistake to assume, that these four styles had succeeded one another chronologically; we must suppose, that there have existed an earlier and a later period, the "second style" probably lying between them. Besides, it is difficult to guess the date of creation from the style. The only fact we are able to make out is, that those paintings have been executed by a guild, as it were, of painters of several generations running, who had been trained in those, then, modern forms of style which from Alexandria had spread themselves over all the more important places. Although not all of these painters have been Greeks, this corporation is to be called Hellenistic. But besides these real artists there have existed painters, mostly natives, who painted for the houses of the poor and for the deities; they imitated the good foreign masters and copied the traditional execution of the religious pictures and statues. From these painters seem to originate the serpents of the façades (see plate 47) and the figures on the hearths, which are rather inferior from an aesthetic point of view, but nevertheless are much better than those modern decorative paintings in the vicinity of Naples.

Especially known are the beautiful frescoes in the Casa dei Vettii, which have been reproduced in a special work "Nuovi Scavi di Pompeji, Casa dei Vettii per Pasquale d'Amelio." A specimen is given in plate 43.

The style of the frescoes at Herculanum is about the same as the Pompeian style, but its development, though the same in the main features, has taken another course, the execution is more antique, the artistic perfection of the painters more superior. The colours are more brilliant and richer, the ornamentation is more ingenious, the design more expressive. Regarding aesthetic perfection, however, the Pompeian forms of style deserve a higher praise.

Plate 35. Pompeian Frescoes.

Fig. 1. Fresco. First period. (Presuhn, Die pompejanischen Wanddekorationen.)—Fig. 2. Fresco. Second period. (Nicolini, Pompeji.)

Plate 36. Pompeian Frescoes.

(Gruner, Specimens of ornamental Art.)

Figs. 1, 2. Frescoes in the House of the Labyrinth. Second period.

Plate 37. Pompeian Frescoes.

(Nicolini, Pompeji.)

Fig. 1. Fresco. Third period.—Fig. 2. Fresco. Fourth period.

Plate 38. Pompeian Frescoes.

(Zahn, Ornamente aller klassischen Kunstepochen.)

Fig. 1. Painted frieze from Pompeii. Naples Museum.—Fig. 2. Frieze from the House del poeta tragico.—Fig. 3. Fresco from the House d'Argo ed Io.—Fig. 4. Fresco from the House del Gran Duca di Toscana.

Plate 39. Frescoes.

Fig. 1. Fresco from Herculanum. (Zahn, Ornamente.)—Fig. 2. Fresco from Pompeii. (Nicolini.)

Plate 40. Decorative Paintings.

Fig. 1. Frieze from Pompeii. (Nicolini.)—Figs. 2, 5. Pilaster-paintings at Herculanum. (Zahn, Ornamente.)—Fig. 3. Painted ceiling at Pompeii. (Zahn, Ornamente.)—Fig. 4. Painted ceiling at Pompeii. (Nicolini.)

Plate 41. Pompeian Frescoes.

(Zahn, Ornamente aller klassischen Kunstepochen.)

Figs. 1—9. Pilaster-decorations.

Plate 42. Pompeian Frescoes.

(Zahn, Ornamente aller klassischen Kunstepochen.)

Figs. 1—20. Painted frames.

Plate 43. Pompeian Frescoes.

(Pasquale d'Amelio, Nuovi Scavi di Pompeji, Casa dei Vettii.)

Figs. 1—5. Friezes of little Cupids.

Plate 44. Pompeian Paintings and Mosaics.

(Zahn, Ornamente aller klassischen Kunstepochen.)

Figs. 1—3, 5—7. Wall-decorations of several houses at Pompeii.—Fig. 4. Column with mosaic from the House delle quatro colonne a Mosaico in the Street of Tombs at Pompeii. (Gruner, Specimens of ornamental Art.)

Plate 45. Pompeian Decorations of Walls and Rooms.

(Nicolini, Pompeji.)

Figs. 1, 3. Wall-decorations. Third period.—Fig. 2. Painted statue of Isis.

Plate 46. Wall-decorations.

Fig. 1. Frieze from Herculanum. (Zahn, Ornamente.)—Figs. 2—4. Friezes from Pompeii. (Zahn, Ornamente.)—Fig. 5. Fountain in a niche of the House of Medusa at Pompeii. (Gruner, Specimens of ornamental Art.)

Plate 47. Façade-painting.

(Nicolini, Pompeji.)

Façade with balcony and shop at Pompeii.

Plate 48. Painted Pompeian Stucco-ornaments.

(Zahn, Ornamente aller klassischen Kunstepochen.)

Figs. 1, 6, 7, 8, 13. Painted columns and capitals of stone, covered with stucco.—Figs. 2—5, 9—12. Painted interior mouldings.

Plate 49. Marble Mosaics.

Figs. 1—4, 7, 10, 11. Marble mosaics from Pompeii.—Figs. 5, 6, 8, 9. Rosettes of marble pieces and vitreous paste from Herculanum. (Zahn, Ornamente.)

Plate 50. Pompeian Furniture.

(Nicolini, Pompeji.)

Fig. 1. Money-chest of bronze.—Figs. 2—5. Bedstead of wood and bronze.

Plate 51. Hellenistic Glass-vessels.

(Nicolini.)

Figs. 1—7, 9—13. Glass-vessels, found at Pompeii.—Fig. 8. Funeral urn of blue glass with a coating of white glass and bas-reliefs. Found at Pompeii.

Plate 52. Alexandrian Tissues.

Figs. 1—4, 6—9. Silk tissues interwoven with gold. IIIrd—VIth cent. A. D. (Fischbach, Die wichtigsten Webeornamente.)—Fig. 5. Portrait from Hawara. End of the first century A. D. Painting in distemper on canvas with white ground-colour. (Antike Denkmäler.)

The Buddhist Ornament in India.

Polychromy of the Buddhist Cave-temples.

The promotion of Buddhism to the rank of state-religion in the year 256 B. C. by King Asoka (276 – 240 B. C.) was the beginning of a new era of art quite different to the former Vedic-Brahminic one. It existed up to the eighth century A. D., when it was replaced by the Neo-Brahminic art. In regard to polychromy the wall-paintings of the cave-temples, especially of those of Ajantâ, represent the highest accomplishment of this art and at the same time an authentic document on the development of Buddhism, the rise of the atheistic teacher and philosopher Buddha to a divine dignity and the mode of life of that time. In most cases the founder of the religion is represented in a strict conventional manner like in China and Japan, but sometimes also as a human being living among men.

Fergusson says, that those wall-paintings are, at any rate, better than any paintings of Orcagna or Fiesole. Their style, however, points more to China than to Europe, especially when we regard the wanting of plastic and shades. The ornament is on about the same level as that of the thermae of Titus. The same style, the same symbols, the same decorative details, the same manner of grouping are to be found in the Buddhist paintings of Nepal, China, Japan, Burma, and Java. But though Ajantâ is younger, it has drawn from the original source of inspiration, the imitation of nature; the artist has painted what he had before his eyes.

As nearly all modes of painting employ the same technique, in the Egyptian and Etruscan tombs as well as at Pompeii and Herculanum and at Ajantâ, they necessarily must correspond to each other to a certain degree; thus especially a fresco of Ambrogio Lorenzatti ‹XIVth century A. D.› shows a striking resemblance in coloration and execution to the wall-paintings of Ajantâ. From the exact mode of drawing in the latter we may infer an advanced artistic training of the creators of these paintings, especially the representation of the hands in the most difficult positions is astonishing. ‹Fig. 13.› The feet, however, are somewhat neglected; the exaggeration in female hips and bosoms is common to all Indian sculptors.

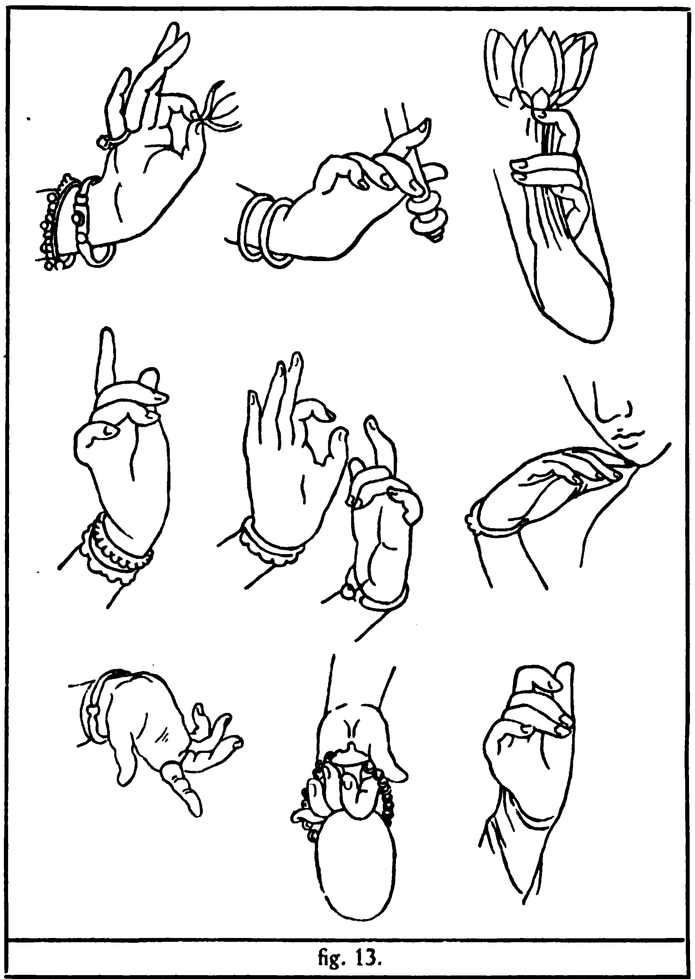


fig. 13.

The execution of those paintings is a mixture of painting in distemper and fresco. A plaster of clay, cow-dung and trap-dust was applied to the rock, abcut $\frac{3}{4}$ in. thick, and pressed on it in order to fill all holes in the stone. Then a thin coat of gypsum was laid on with a coarse brush and smoothed with a kind of trowel. The drawing was traced or powdered on this smooth surface. The outlines were drawn with brown or black colour, the local colour, consisting of colouring matter, rice- or glue-water and honey, was laid on, and at last the details were executed.

In some of the temples white lights have been obtained by scratching off the colour and laying bare the white background, as it is customary in the sgraffito-painting.

Plate 53. Paintings in the Buddhist Cave-temples of Ajantâ, VIth century A. D.

‹Griffith, Paintings in the Buddhist cave-temples of Ajantâ, Kandeh in India.›

Figs. 1—3, 7, 10. Paintings in coffers of rock-ceilings.—Fig. 4. Portrait of Buddha.—Figs. 5, 6, 8, 9. Painted rock-pillars.

Plate 54. Ceiling-pieces in the Buddhist Cave-temples of Ajantâ.

(Griffith.)

Figs. 1, 2, 4, 5. Paintings on smooth rock-ceilings.—Fig. 3. Painting on a coffer of a rock-ceiling.

Plate 55. Paintings in the Buddhist Cave-temples of Ajantâ.

(Griffith.)

Paintings on a plastered rock.

The early Christian Ornament.

It would be a mistake to ascribe to the classical art of the era of Augustus the decline which later on really came. This era, important enough to create a new religion and a new view of life which have lasted nearly two thousand years, has also proved productive in its artistic creations. Coincident with the expansion of Christianity in the first centuries a new art was developed different from the classical one, called early Christian art. It was, however, not an entirely new style, but rather an adaption of the classical art to the new Christian notions and ideas.

As the numerous monuments of the early Christian art represent only an insignificant portion of the works created in that time, we are no longer justified in speaking of the aversion of early Christianity to art in general and of its contrast to the antique especially. On the contrary, the habit of decorating artistically the coffins of the deceased, the burial-places, the churches and dwelling-houses and all religious and other objects makes manifest a pronounced antique culture and tendency. The rising Christian era found the antique art connected with the life and the spirit of the age to such a degree, that it could not possibly do otherwise than avail itself of the antique accomplishments for all its artistic purposes. The early Christian works of art are therefore only part of the whole of later antique art. Concerning the countries of the Mediterranean we may assume that up to the fourth century A. D. the pagan, after this time the Christian monuments predominate.

The symbolical motives, which we come across in early Christian works of art, are the following: the monogram of Christ X and P, A and Ω, further the fish, the dove, the anchor etc. Sometimes we find whole representations of the figures of Christ and the apostles in life size or as busts, scenes from the life of the Saviour or from the Old Testament, also often portraits of the possessors or representations of the everyday life with pious inscriptions and symbols. The early antique manner of using human figures and scenes is gradually substituted by the purely ornamental and decorative principle of the early medieval period; but this change, which lasted six centuries, is by no means to be considered as a decline, but only as a change of taste. There is no doubt that in the first centuries of the Imperial Time, Italy had the sole leadership in all matters of art, but the east of the Roman Empire very soon developed other centres of art, which were also mostly the home-steads of the rising Christianity, as Syria, Palestine, Asia Minor, Egypt etc. Moreover, with the transfer of the Imperial residence to Byzantium in the year 330 another centre had come into existence, which soon excelled Rome in pomp and magnificence. Consequently the early Christian art was divided into two chief branches, a western and an eastern one. The latter soon lost the largest part of its sphere through the spreading Islam. Then the early Christian art at Byzantium develops into the so-called Byzantine art.

When Christianity was adopted as a state-religion in 330 A. D. the eastern centres of culture played an important part, especially Egypt. In this old cultured country so many remains of early Byzantine and early Christian art have been found, that they caused an entirely new interpretation of the early Christian period in the history of art. Especially the numerous textile remains discovered in the necropolises of Achmim ‹Panopolis›, Antinoë, Fayum, Sakkarah and Bawit put the antique textile art in a new light. The products of the native ‹then Christian› population are termed Coptic. The decoration of the Coptic woven materials does not consist of inwoven patterns, but of gobelin-like weaving and stuffing. In ordinary weaving two systems of threads called warp and woof cross each other, while in gobelin-work the coloured thread reaches as far as the design requires and then is cut off and knotted at the back. This accounts for the variety of Coptic tissues and their rich and many-coloured decorative motives. The ground is mostly a yellowish white canvas, the design an embroidery of coloured or purple woolen yarn. The remains which have been found are parts of garments, the trimmings on chest and back are richly decorated. Even the materials decorated with religious representations had not a special religious purpose, as liturgic garments for the clergy were unknown, but they were amply used in decorating churches; in this case they generally consisted of silk. This valuable material, which in itself entices to an artistical execution of weaving, was up to the sixth century manufactured only in China and Kotan and was brought to Persia, Syria, Alexandria etc. by caravans or by sea. This industry the court of Byzantium soon changed into a monopoly, and by establishing the breeding of silkworms made the Byzantine Empire independent of China.

The finds of Achmim prove that silk has been worn even in the earliest times of the Empire. Whole garments of silk, however, were very rare in that time, but trimmings on linen textures, where the linen threads were substituted by silk threads, occurred very frequently.

All textile works of the later era are based on the Roman-classical art, not on the Egyptian one. We have, therefore, to see in these finds Roman or Byzantine textile materials like those which were worn in the Western Empire at that time, so that many experts think it erroneous to call those stuffs Coptic. The Hellenistic textile ornament of Alexandria became after the transfer of the Imperial residence to Byzantium a mixture of declining classical and early Christian or Byzantine art. The polychromy gradually displaced the drawing. The era after Justinian is characterized especially by wild and hard forms and a glaring coloration, combined, however, with a sometimes remarkable chord of colours. The colours of these tissues are free, i. e. without superposition for the purpose of producing shades; only in a few pieces a certain shading is to be noticed. The chief colours are purple, brownish violet and red, mostly madder ⟨rubia tinctorum⟩; the colours of the ornaments are indigo, violet blue, sky-blue, golden yellow, orange, green in several shades, and black.

Plate 56. Coptic Tissues.

Figs. 1—4, 6—8. Coptic tapestries. ⟨Gerspach, Les tapisseries coptes.⟩—Fig. 5. Coptic tissue. Berlin Museum of applied Arts. ⟨Lehnert, Ill. Geschichte des Kunstgewerbes.⟩

Plate 57. Coptic Tissues.

Fig. 1. Silk edging. Arabian influence. VIIth century. ⟨P. Forrer, Römische und Byzantinische Seidentextilien aus dem Gräberfelde von Achmim-Panopolis.⟩—Fig. 2. Silk edging of a Gobelin, with animals. VIIth century. ⟨Forrer.⟩—Fig. 3. Christ as teacher. From a series of pictures representing the life of Christ from a pallium pontificium. VIth century. ⟨Forrer.⟩—Fig. 4. Silk edging. VIth century. ⟨Forrer.⟩—Fig. 5. Silk material with Cufic letters. VIIth century. ⟨Forrer.⟩—Fig. 6. Silk material with the Holy Virgin, the infant Jesus and a worshipper in front of a house. VIth century.—Fig. 7. Christ at the cross. From the same pallium as in fig. 3. ⟨Forrer.⟩—Fig. 8. The Angel of the Annunciation, from the same pallium. ⟨Forrer.⟩—Figs. 9, 11. Silk materials found in a tomb at Antinoë, Upper Egypt. Vth century. ⟨Lessing, Gewebesammlung des Kgl. Kunstgewerbemuseums in Berlin.⟩—Fig. 10. Silk edging with the monogram of Christ. VIIth century. ⟨Forrer.⟩

The late Persian Ornament.

The art of the Sassanian era was influenced by Greek elements to a considerable degree. The textile materials of this time are of elaborate workmanship.

Plate 58. Tissues of the Era of the Sassanian Dynasty.

Figs. 1, 2. Tissues in the Church of Servatius at Maëstricht. IIIrd—VIIth century. ⟨Fischbach, Die wichtigsten Webeornamente.⟩—Fig. 3. Tissue with the four-bodied sea-lion representing the four seasons. From Goerz. ⟨Fischbach.⟩—Fig. 4. Tissue in St. Ursula at Cologne. ⟨Fischbach.⟩—Fig. 5. Bowl of the treasure of St. Denis. Said to originate from King Chosru I. ⟨531—579 A. D.⟩, whose portrait is to be seen in the centre of the bowl. Probably part of the gifts of Haroun-al-Rashid to Charlemagne.—Fig. 6. Silk material. Berlin Museum of applied Arts. VIth or VIIth century. ⟨Lessing.⟩—Fig. 7. Tissue. Era of King Chosru II. ⟨591—628 A. D.⟩ Probably manufactured at Ktesiphon. Now in St. Ursula at Cologne. ⟨Lessing.⟩

The late Greek Ornament.

In the time of the decline of the classical art a new characteristic style on a classical basis with Oriental influences was developed in Greece and her colonies, specimens of which have been delivered in the so-called Treasure of Petrosa ⟨Roumania⟩. Although the existence of runic letters on a smooth bracelet proves that this treasure has been in the possession of Germanics, it must be considered as a product of the late Grecian art. It is probably the booty of a warlike expedition in eastern Greece hidden in the ground by a Teutonic tribe on their retreat. Barbarous or Oriental workmanship is hardly to be proved in this treasure, though slight traces of Oriental execution are exhibited in some pieces.

Plate 59. The Treasure of Petrosa.

⟨Linas, Les origines de l'orfèvrerie cloisonnée.⟩

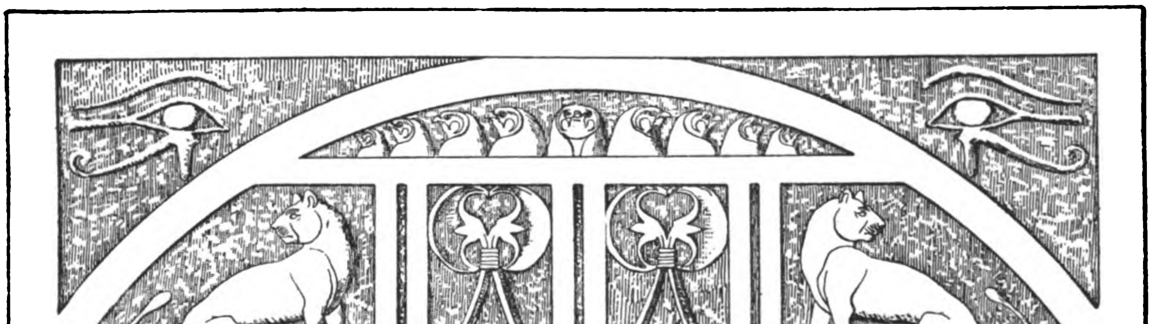
Fig. 1. Octagonal bowl.—Figs. 2, 5. Fibula.—Figs. 3, 4, 6. Twelf-sided bowl. ⟨Fig. 3. Side-view. Fig. 4. Handle seen from above.⟩

Supplement.

Plate 60. Antique Vases.

(Catalogue of Hugo Helbing at Munich, auction October 30th 1913.)

Fig. 1. Kantharos from Madytos, probably early Caesarean era.—Fig. 2. Crater from Greece, late geometrical epoch.—Fig. 3. Neck of a vessel, representing the head of an ibex. From the Pontus. Hellenistic.—Fig. 4. Three-handled vase from Rhodes. End of the Mycenaean epoch.—Fig. 5. Vessel with handle, from Kul-tepe. Stone age.—Fig. 6. Necked amphora from Greece. Geometrical epoch.—Fig. 7. Vessel with handle, from Kul-tepe. Stone age.—Fig. 8. Vessel with handle, from Rhodes.—Fig. 9. Rhodian vessel with handle.—Fig. 10. Vase with cover, from Rhodes. Time of the decline of the Aegean art.



THE
COLOURED ORNAMENT
OF ALL HISTORICAL STYLES
BY ALEXANDER SPELTZ

PART II: MIDDLE AGES

THE
COLOURED ORNAMENT
OF ALL HISTORICAL STYLES

WITH COLOURED PLATES FROM OWN
PAINTINGS IN WATER COLOURS
BY ALEXANDER SPELTZ, ARCHITECT

THREE PARTS, CONTAINING SIXTY
COLOURED PLATES EACH WITH TEXT

SECOND PART
MIDDLE AGES

SIXTY PLATES IN THREE-COLOUR OR FOUR-COLOUR
PRINTING WITH A FRONTISPIECE AND ILLUSTRATED TEXT

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MIDDLE AGES

Late Classical Germanic Ornament.

In the countries from the Black Sea to Spain, from North Africa to Britain, which had for centuries stood under the influence of Roman culture, the Germanics coming from North and East had soon founded their own states, most of which, however, were only of short duration. Combined with the progressive advance of christianism, which in the beginning was strange to Arts, the natural consequence thereof was the complete devastation of most the cities, a new direction of the aesthetical taste and artistic school producing independent new formations. On an intense study of the ornaments of the period succeeding the migration of people, the idea must arise that a new Barbaric or Germanic style had partly taken the place of and altered the antique Art.

Before their invasion in the Roman Empire the Germanics had, on one hand, adopted an Art of their own which was then combined with the Roman Classical Art, on the other hand the late antique East and West Roman elements were subjected to Barbarian mutilation. Architecture being of no account whatever in this line of Art, we must judge this exclusively from the tools and utensils still existing. A well-founded reason to conclude that the Germanics had an Art of their own, is the fact that the above-mentioned metal tools were found wherever the Germanic race had settled for some space of time, they even being the sole means to trace the Germanic migration. The barbarian taste in all these utensils is manifested above all by the exclusive use of massive gold, whilst the classical Art had used silver exclusively for tanks and vessels.

The technical and ornamental characteristics, however, shown on all objects found, are the most tangible proof for the opinion first maintained in France by Lasteyrie, then in Germany by Lindenschmidt, asserting the existence of an original Germanic Art at the Period of migration. One of these characteristic marks is the mosaic-like adornment of golden tools with tabular red gems, later with thin red and green glass plates, that may be called cellular vitrification. These thin plates are let in either directly in cut out holes, in punched out deepenings on the gold ground, or in cells formed by soldered on metal blades, the upper ends of the latter being on a level with the gems or plates. Another characteristic mark considered as being originally Germanic and used in innumberable variations, is the ornament of interlaced and interwoven bands, often adorned with heads of animals at the extremities. This plaited work, deviating from the Northern Irish animal ornament, is either inlaid, made in filigree, bas relief, or with incised slanting sections. From this latter method particularly Lindenschmidt deduces an original Germanic Art derived from Scandinavian wickerwork, though Alois Riegl proved that the buckles of the Roman legionaries' belts were showing the same wedged cut. It may be assumed, however, that the cellular mosaic works are either East Roman originals, or Germanic imitations of these. As a matter of course, the craftsmen in the conquered parts have continued their trade, despite the retrogression of culture and the general devastation; besides, the Goths, for instance, were Barbarians no more, but doing their utmost to uphold the former Roman culture. The existing workshops were made schools for the Germanic craftsmen, as is proved by numerous glass vessels found in the Rhineland, in Italy, Gaul and England, glass-blowing being in no way a trade the Germanics had carried on on their march. The glass vessels of this period, however, lack the elegant shape, the fine outline and practical construction of antique glasses.

Setting aside the undecided question regarding the existence of an original Germanic Art, it is certain that the peoples who were less tempted to sacrifice their nationality for a higher civilization, have brought a touch of barbarism to the classical style, particularly in their metal works and even in the most costly tools of cellular mosaic, found mostly in the transalpine excavations. According to the master's designation the reliquary of Burgundian origine of the Eighth Century at St. Maurice in the canton of Valais ‹Plate 1, fig. 3 and 4› is an important monument of this Art. This work differs from the Byzantine-like works of the Goths and Longobards above all in the uncouth and rude treatment of cellular ornaments, in the treatment of early classical outlines, revealing barbarian inability on one hand, on the other, Germanic fancy in the twisted lines. St. Eligius of Noyon who worked for the Kings Chlotar II and Dagobert and died as Bishop of Tournay, was a well-known goldsmith of this period.

Whilst in Central Europe this line of Art was decisively influenced by the Roman Art, had a greater influence in Upper Italy and Spain. So the gold treasure discovered at Fuente de Guarrazar in 1858, brought forth a most beautiful collection of votive crowns, nine of which are in the Museum at Cluny and three in the Armeria Real at Madrid. These crowns were given for a present by princes, destined for being hanged above altars and seem to be home-made, probably by Byzantine goldsmiths. ‹See table 2.›

Finally out of the many finds made there are to be read two currents: the Byzantine and the Germanic one. The former continued the ancient Byzantine vitrification of cells without further Germanization, whereas the latter, coming from a late Roman origin, by fancy was transformed to a German style. The objects of workmanship of the latter are principally small utensils made of base material, whilst she former current is expanding only in the most precious materials. Here we have the courtart for the superior educadet political and ecclesiastical circles whose Byzantinization or Graecization has been already for advancing, the other current however is the popular art for the masses being still barbarous and patriotically minded. Since the Byzantine school was found a finished model by the Germanics immigrating, its development during the four centuries up to the Carolingians is not mounting but declining, terminating and slowly dying off. The popular art, on the contrary, starts with awkward imitations of the forms and of the technical skill which the relics of the late Roman art surviving the empire offered; the farther withdrawing from this source the more it gains in independence. It is true, this art has not as splendid treasues to show as the Byzantine courtart, but its modest works with their fantastic ornamentation weap in their bud the Roman art which begins to arise after Byzantine Art had expired.

Table 1: Merovingian goldsmith's work.

Figs. 1 and 2. Clasp in the Museum at Cluny, Paris (Linas, Les origines de l'orfèvrerie cloisonnée). — Figs. 3 and 4. Reliquary in the Monastery St. Maurice (Linas). — Fig. 5. Coat-of-arms (Linas). — Figs. 6, 7, 11 and 13. Gold fibulas, made by the Burgundians Undhio and Ello (Linas). — Fig. 8. Gold cup, belonging to 10 and 12. — Fig. 9. Silver fibula (Havard, Histoire de l'orfèvrerie française). — Figs. 10 and 12. Golden dish (Linas). — Fig. 14. Lock of a purse (Linas). — Fig. 15. Hilt from Childerich's grave (Linas). — Fig. 16. Buckle of a belt (Linas). — Fig. 17. Earring (Linas).

Table 2: Treasure of Guarrazar.

(Monumentos de España.)

Fig. 1. Votive crown of the Abbot Theodosius in Guarrazar. — Fig. 2. Suspensor for a votive crown. — Fig. 3. Cross for a procession, called de la Victoria, in the Holy Chamber of the Cathedrale of Oviedo, 9th century. — Fig. 4. Votive crown of King Receswint (King of Spain 649—672) in Guarrazar. — Fig. 5. Cross for a procession, called de los Angeles, in the Holy Chamber of the Cathedral of Oviedo, 10th century. — Fig. 6. Votive crown. — Figs. 7 and 9. Votive crosses. — Fig. 8. Reverse of the cross of Fig. 4.

The Byzantine Ornament.

Like the Jews the first christians had only very little artistic fits, thinking art to be the chief stronghold of paganism. When, therefore, they could no more help coming near art, this had to be done in a manner wholly differring from classic art. Thus the art of the old catacombs was a purely symbolic one, in which nowhere scenes of martyrdom or portraits are visible, whilst, on the contrary, by mythological decorations, representation of countrylife etc. they endeavoured to satisfy the ideas of the converted heathens. So the mystic figures: Anchor, fish, pigeon etc. used in the oriental parishes, were very frequent here. All the creations of this art had a delicate and poetical character, so Christ as a good shepherd leading his sheep to pasture or home, the immortal soul among the flowers of the Paradise, the allegorical figures of Psyche and Orpheus, Daniel and Jonas. With this simple-minded symbolism the easy temper of the oriental philosophers was mixed in some liturgic representations. On the whole christian art before christian religion being raised to state-religion, was a simple, familiar, and popular one, for the formation of which, to be sure, the orient has often contributed.

Naturally the triumph of christianity in the beginning of the 4th century had to lead to remarkable consequences for art too; for until that time christianity had to vegetate in the shadow and, more than once, to suffer most sanguinary persecutions, whereas now it had become a state-religion protected by the emperor, which, of course, called forth an activity in the domain of art never seen till this time. Divine service now took place no more in gloomy catacombs, but in basilicas splendidly fitted up, in the decoration of which that splendour was expressed which the victorious christianity now bigan to unfold. The naked walls were cased with marble in their interior, an instead of the modest pictures in the catacombs there were marble or glassmosaics put up, which could not be destroyed by time like those pictures. The precious metals, too, had to contribute to increasing the luxury in the sacred buildings; their capitals, their ceilings were gilded. The floors were covered with coloured marble-mosaics and even to the exterior of the venerated houses the magnificent polychronism of byzantine art was transferred.

Likewise the contents of the representations manifested the new spirit invading christian religion, although the scruples with regard to the pictures were still lasting for some time. Especially the representation of religious mysteries was avoided, and profane descriptions taken from paganism were preferred to which a symbolical meaning was attributed.

When christianity had been appointed state-religion, of course it entered intimate relations with government which protected it inreturn and made it a strong instrument for its purposes. On account of these mutual relationship christian art in the 4th century became the official art, and now assisted in any case by the emperors and the court, it quickly worked its way up to the most exquisit splendour. Particularly in Palestina magnificent buildings shot up attracting innumerable quantities of pilgrims from the whole christian world. It was here that in paintings or mosaics scenes from the New Testament were shining in a new budding style, which soon were imitated in the occident too, so that gradually a type throughout precise grew up for these scenes, that had been wholly missing in the catacombs.

By removing of the residence to Byzantium the political centre of gravity of the Roman empire was laid to the East, where now also was the centre of gravity of christianity; in consequence the new art, being besides in contact with the oriental civilisations, particularly with the hellenism, was able to develop itself in a most energetic manner. Large cities like Antiochia, Alexandria, Ephesus etc. were places where the old hellenistic art developped itself and keeping on the old forms and noble traditions of classicism had called forth an original art.

Not only classicism, however, was the mother of the new christian art, but also the Persian art, that under the Sassanids' reign by right and suitable combination with the old oriental art had become a new art, especially in Mesopotamia, from where the old traditions spread quickly over the hellenistic towns. There cellular melting and the whole enamelling art came from, the rich draperies made of gold and silver threads and models and style of the orient with them. In the old oriental art the prince always being celebrated not only by luxury as to material but also by choosing the scheme, there may be easily comprehended that this predilection for luxury was transferred to Byzantium too. Like in the old orient, art instead of being a free production of the beautiful, became an instument in the hands of the prevailing class and priests, a glorification of God and of the emperor. And now happened the perplexing fact that antique art was forced to be overthrown by the old oriental art.

Consequently to the creation of the new christian art three elements were attributing: Christianity, hellenism, and the orient. Indeed, only gradually and influenced by Constantinople there rose a certain uniformity, before the characteristic features of Byzantine art were to be seen. This art however may not be considered an exclusively religious art, it also is a profane one.

As to the birth of Byzantine art there is often attributed a decisive part to Rome by supposing during the first centuries a specially Roman art to have existed which had suppressed the ancient Hellenic art in the orient. But according to modern researches there seems to be certain that the rays of the Hellenic art sent to the back-country sprang back from the Sassanid art, and that the latter cast its rays to the centre of hellenism. In the valleys of Euphrates and Tigris oriental mind resisted hellenism; in Egypt the old art having withstood so many transformations maintained; in Syria semitic tendences get the better, and even in the large hellenic centres of art these influences are sensible. It is Strzygowski who drew our attention to Asia Minor, being cradle of the Byzantine art. In the 4th and 5th century, in the contrary, the new art, not in the least receiving anything from Rome has vigourously developped itself outside of it and by melting hellenism with the old oriental art it has exerted its strong influence everywhere, even in Rome.

Constantinople in consequence of its geographic situation was especially fitted for taking upon itself the mediation between orientalism and hellenism, and although the new style has had its cradle in the art-centres of that time in Asia Minor and Egypt, it has found its consolidation only in Constantinople. It is clear that in the new imperial residence, the immense number of new buildings, the luxury of the court, the continuous contact with the masterworks of hellenism necessarily at an early date created a great and powerful movement of art which movement, therefore, merits, as it seems, the name of Byzantine art.

Among the countries in which the origin of christian art is to be looked for, Syria from the 4th till the 6th, offers a special interest. She was a rich country with a dense population, with a flourishing industry, many large and well growing commercial towns, with business-connexions on the one hand to the Mediterranian till Spain, on the other to the interior of Asia, Persia, India, Central Asia, and even China. Syria, besides, had many schools for erudition with a brisk intellectual scientific movement, where first of all theological sciences were cultivated with a real fanatism. It was here that Nestorianism, monophysism, and ascetism were flourishing. In such a sphere christian art could not help developping itself the most vigourously. In spite of the great influence of Greek art and the long Roman reign it was rather difficult to displace completely paganism and semitism; in the contrary both these currents gave a quite special colour to Syric christianity. The great heresies occurring here are nothing else but the manifestation of particularism dominating here, the reaction against the mind represented by Constantinople. As after the victory of christianity language and literature of Syria awoke, as a similar renaissance was awakened in the old native traditions. There new forms appeared that wore nothing from hellenism and romanism about themselves. Classic art, now, was more and more stiffening, whereas here a new fertile and on singular paths progressing school grew up, to which the continuous cóntract with Persia and Mesopotamia attributed in a very high degree.

As in the interior of Syria exclusively cromlech, but in the large cities on the coast brick structure was prevailing, consequently in the latter first of all polychromy either in form of outfit with precious metals, mosaics or of pictures has, no doubt, played an important part.

As it results from documents, here all the churches, public offices etc. were adorned with a marvellously polychrome luxury.

Among the old cities of antiquity hardly one has occupied as prominent a position as Alexandria. Being the centre of commerce in the Mediterranean, famous by the splendour of its festivals, its monumental edifices, the beauty and number of its strumpets, it finally became the metropolis of christianity too. Except perhaps Syria, there was hardly to be found as favourable a soil for theological disputes as here, nowhere a greater enthusiasm for the secrets of religion. It is here that arianism, nestorianism, monôphysism and monachism were invented; here is the cradle of the ascetic hermits and monks, who crowded innumerable monasteries. It is evident that here as well as in Syria christianity had a peculiar expression. In the face of hellenism it seemed to be a manifestation of national mind, and heresy was nothing but a special form of separatism. Although Alexandria was the capital of hellenism, there existed here even now the old national traditions, the country being even now an Egyptian one, and just the victory of christianity favoured the renaissance of national art. Thus in the third century the Coptic art was created which especially in Upper Egypt held out well against hellenism in Alexandria. It is true, the first elements of this art were hellenistic ones and remained so for a long time, bat their mind and technic were purely Egyptian ones. With the aid of christianity it gained its highest point in the fifth century. As well as the Syrian art this one is a combination of hellenic elements with oriental motives, until it finally orientalized itself influenced by Syrian effects. No doubt, Egyptian art impregnated by the orient has had a great effect upon the formation of Byzantine art, for in Syria as well as in Egypt Byzantium met with a double fountain of inspirations, beside hellenism national art. However it was the Alexandrian polychromism that had a peculiar influence both in aesthetic and in technic reference. Already in the time of Ptolemaeus the Alexandrian architects had invented a method of decoration, being easily to accomplish and luxurious, the origin of which we have to search in Assyria and Persia. Upon the brickwalls of their buildings they fixed a sumptuous fitting of metal, marble, ebony, glass, stucco, mosaic or tapestry, so that there was nothing to be seen of the original wall. This fitting consisting of various materials was very usual especially at the court of Alexandria. In order to increase the splendour of this decoration, they fixed picturesque basreliefs similar to paintings on the walls. With great energy the Byzantine artists took up this method of decoration. But we also may suppose that with regard to the manifold relations between Byzantium and Persia many of these things have come directly to Byzantium by passing over Alexandria.

Alexandrian art was an essentielly decorative one that in its elements which it composed its decorations with, above all sought for picturesque detail and realistic truth. Alexandria was a city for amusement, pleasure, and love and Alexandrian art was cut up for this purpose — comparable to the art of rococo. As there shepherds were predominating as here the piquant scenes of the classic mythology; herewith joined the coloured garlands, the sunny landscapes, the countrylike scenes, the still-lives. From this quite a particular picturesque art in connexion with a good knowledge of the perspective was derivated. After a short time this special art was spread over the whole antic world. The great influence of hellenistic art in Alexandria sooner passed over to christianity, the church of which claimed this picturesque art willingly for its sanctuaries. Thus the sacred buildings erected in the 4th and 5th century exhibit plenty of profane motives, birds and flowers, hunting- and fishing-scenes, landscapes owing to the valley of the Nilus, architectures similar to those of the Pompeian frescos, pictures representing every day life, and ornaments. By very many examples there may be proved, which rank Alexandrian traditions have occupied and kept on in Byzantinism. Yet Alexandian art did not cultivate the picturesque one alone but also realism. All those charakteristic expressive portraits that were found in Fajum show in what high a degree hellenistic art was able to hold fast human features on the cavas with any animation desired. It is the same art that we find again in the encaustic pictures in Mount Sinai, in the mosaics at Ravenna, and it certainly had a great influence upon the development of christian art, especially upon that of historical painting. By this there was given a more individual feature to the figures of Christ, of the Holy Virgin, of the apostles, and of the evangelists. Likewise the origin of Byzantine manuscript-painting is to be found in Egypt among the Ptolemaeans; several Byzantine manuscripts are nothing but simple copies taken from Alexandrian manuscripts of a purely hellenistic character.

Formerly some people doubted the part that Egypt attributed to the rise of Byzantine art and then went to the other extreme of ascribing it all to Alexandria. With regard to the neighbourhood of Egypt and Syria the art of both these countries probably has had many things in common, the term „Syrian-Egyptian art" for expressing all that has been borrowed from these countries may be correct, in contrast with that merely hellenistic art that advanced from Asia Minor to Byzantium helping in a large measure to promote there national art. No other country had been pervaded by hellenism as much as that on the coast of Asia Minor, but less the interior highland, where the orient was always superior.. On account of its geographical position no other country was equally apted to melt various civilisations with one an other, nowhere hellenism and orient could mutually penetrate themselves like here. Hitherto the monuments of Asia Minor were nearly quite unknown; it was Strzygowski that with his epoch-making discoveries at first laid the foundation for wholly new opinions. Already in the 4th century here painters began to celebrate the christian martyrs' actions and founded herewith historical painting in Asia Minor, which afterwards highly influenced scenography. In any case Byzantine art is in debt of this art in Asia Minor for a new orientation and for repulsing the picturesque Alexandrian art in favour of historical style. In antiquity there were in the Mediterranean extremely active commercial relations, for performing of which in all larger towns of the occident agencies of the oriental tradesmen were established. These agencies often were real colonies, even up to Paris and Treves who strictly conserved their language and ethnographic character. Yet it was not only by these agencies but also by pilgrims coming back from Palestine that many decorative motives of the orient were propagated in the occident. Another connecting link were chiefly the monks playing an important part in christianity since the 5th century.

As to decoration Byzantium owes its taste for polychromy, no doubt, to the orient. From there on board Persian vessels came a great many ornamental motives as well as processes for relief-work destined to substitute forms for colours. For Byzantine art the development of polychromy in its largest extent is remarkable by which it has become one of the fundamental rules of art. Not only in its interior but also in its exterior, for, when exclusively bricks were employed, an outfit was necessary which was obtained either by alternating strata of stones and bricks, marble-incrustations or fayence-applications, where as in the interior marble and glass-mosaic were prevailing. With regard to painting Byzantium owes the picturesque style to the hellenistic orient, but the historical and monumental style to the proper orient, being at first a glorification of the prince's person from where religious painting also took its character.

Byzantine art during the reign of Justinian after having attained its highest point of perfection, now began to stagnate by repeating the forms sacrified by tradition, without creating anything that was new. After this emperor's death on account of the miserable interior and exterior position of the reign it began to pass over to gradual decadence, that was going on progressively, as all the forces were consumed to conserve the empire threatened on all sides. In the 7th century the inrush to Rome in consequence of advancing of Islam was so great that it had almost become by half a Byzantine city. This influence was so important that Greek customs spread all over Italy, that the festivals of the Greek saints were accepted and even Greek names, Greek language too, were taken up. Naturally art was participating in this reaction, so that the study of Byzantine art in the 7th century may not be performed without that one of the Italic monuments of that time.

Iconoclasm having ended, in the Byzantine empire during the 9th century a renaissance of art began which is called the second golden age of Byzantine art, a consequence of the simultaneous political flower under the reign of the Macedonian emperors ‹867›, being fond of building. As it always happens with the renaissance of an art, people went back again to antiquity and tried with it to breathe in new life to the Byzantine art having become stable. In the same time they tried imitate the luxury of the Arabian art in Bagdad, Damaskus etc. This renaissance of Byzantine art found a sudden end by the conquest and plundering of Constantinople by the crusaders ‹1204›, whereupon it was modestly vegetating till the conquest of this town by the Turks.

Table 3: Old-Byzantine interior decoration.

‹Köhler, Polychrome Meisterwerke der monumentalen Kunst in Italien.›

Fig. 1: Interior of the Baptisterium of the Cathedral at Ravenna, San Giovanni in Fonte, which is also called Christening-church of the orthodox people, built by archbishop Neo in 425—430, one of the most important monuments of polychrome art in the first centuries of christianity, showing distinctly reminiscences of Roman tradition of art. Unfortunately the lower part of the walls is shortened, for being necessary to clevate the floor by two meters on account of too great a moisture. The precious incrustation of variously coloured marble of the lower section unfortunately is conserved only in part. The cupola in its whole extent is covered with mosaics.

Table 4: Old-Byzantine Marble-mosaic for floors.

‹Hessemer, Arabische und altitalienische Bauverzierungen.›

Figs. 1—5, 7—9 and 11: Marble-floors of the Cathedral at Ravenna built in the 4th century, reconstructed according to single old fragments. — Figs. 6, 10 and 12: Marble-floors of St. Vitell's Church at Ravenna.

Table 5: Byzantine Marble-mosaic for floors.

Figs. 1—7 and 12: Marble-floors in St. Marcus' Church in Venice, built between 977—1071. Indeed it is doubtful if these floors still are original ones, though people in making repairs always endeavoured to conserve the old forms ‹Hessemer, Arabische und altchristliche Bauverzierungen›. — Figs. 8—11 and 13—15: Marble-floors in St. Sophia's in Constantinople ‹Salzenberg, Altchristliche Baudenkmale in Konstantinopel›.

Table 6: Polychrome Wall-outfit made of marble.

(Salzenberg, Altchristliche Baudenkmale in Konstantinopel.)

Figs. 1—6: Marble-decoration of Bema.

Byzantine Glass-mosaic.

At first view the long rows of saints in the churches made of glass-mosaic seem to be similar to one another, and most of them seem to be designed following the same model, the same canon. They only distinguish by conventionel indications: age, colour of the beard and of the hair. Kondakoff comprehends them in three types: that of angels, prophets and apostels; among each of them there is youth, ripe age and advanced age. Sometimes different saints seem to be the portraits of the same person. However when we examine them more thoroughly, we yet notice the effort of making the faces easily recognized from each other. The bishops and monks have a bony, rough face, a clumsy structure of their body, a monotone and weary expression, whilst the angels, the holy figthers with their handsome figure, rich warlike dress, free and stout attitude have a face beaming with beauty. In contrast with the old Greek type here a new one appears with slit eyes, hooked nose, and long hair falling to the shoulders. There is no doubt, in these figures the influence of old-Greek masterworks to be resplendent as well as in their movements, attitude and clothes. But beside these purely classic inspirations we also may find other influences, first of all that of the church with its tendency of glorifying ascetism, of separating beauty from art, of lending austerity, solemnity, and severe, weary and hard faces to the pictures. Monkish tradition was leading in Byzantine art. The cosmopolitan movement of that time in Constantinople also gave the artists exciting and interesting models being welcome to the dominating realism. With the old costumes mechanically modern clothes, arms etc. were mixed. The same spirit of innovation is prevailing in composition. Traditional things were considered to be antiquated and therefore people, within the bounds fixed by the clergy tried to create new and original things in conjunction with great elegance and harmony of composition, mobility and beauty in performing, riches and completeness in colouring.

In the 6th century the white clothes are standing out against the blue background, for the time of the Macedonians and Commenens the gold ground is characteristic admitting for the figures a richer coloration and excluding or diminishing all landscapes and accessories.

On this gold ground the figures are grouped for which iconography has invented new types, but this manner of grouping is by no means unchangeable. By new episodes, enlarging of the groupes, variety of gestes and attitude innovations are made. In a short time the figures are symmetrically grouped round the chief person the equilibrium of the masses being guarded. However unsymmetric a grouping often may take place, yet the artist is fulfilling the decorative line and the harmonic arranging of figures.

In technical performing, too, a great progress is here to be observed in contrast with the mosaics of the former art; likewise as to colouring which, joining to the gold ground, admits richer and differring combinations. In choosing colours very ingeniously is taken in consideration to put constantly complementary colours beside one another, which impressionistic technic by corresponding hue, by the contrast of the complementary colours, by mixing of its lively colours of the clothes with the gold ground and by the neutral tone of the accessories produces a marvellous raffinement. Each dark spot is contrasting with clear tones, and the spirit of colour is manifesting itself in the general equilibrium of decoration. The ancient mosaic-artist took his inspiration from the sculptor, and his white figures seem to be marble-figures. This sobriety is supplied with such a variety, riches, and completeness, that exhibits a colouristic school.

Rich treasures of Byzantine mosaics are in St. Marcus', at Venice which was connected with Byzantium by frequent commercial relations of yore. The building of this church was bigun in 1063 under the doge Domenico Contarini and finished 1095. But the completion of this church to their present state required four more centuries, favoured by the foundation of the Venician realm in the orient. But many mosaics by the rage of restoring of renaissance unfortunabely were destroyed or deformed. There also are rich mosaics of Byzantine origin in Sicily, which was for three centuries a Byzantine province. Although the Sarazens were reigning over this isle for two centuries, nevertheless enough Byzantine element had still remoined for erecting the magnificent buildings of the Norman princes by partial aid of islamitic elements.

In the 10th century people also began to execute mosaics fit to wear for churches, oratories in private houses, even for voyages.

Table 7: Old-Byzantine glass-mosaic.

Figs. 1—6, 8—14: Mosaics from San Lorenzo's, San Clemente's etc., 5th and 6th century ‹Lacroix et Seré, Le moyen âge et la renaissance›. — Fig. 7: Mosaic from San Prisa's near Capua ‹Salazaro›.

Table 8: Byzantine glass-mosaic.

‹Salzenberg, Altchristliche Baudenkmale in Konstantinopel.›

Figs. 1, 7 and 8: Mosaic-decoration of the lower side-halls. — Figs. 2, 5, 10, 11 and 13: Mosaic-decoration of Gynaeceum. — Figs. 3, 4, 6, 12 and 14: Mosaic-details of the chief cupola. — Fig. 9: Mosaic-picture of St. Gregorios Armenios on the south side of the nave.

Table 9: Byzantine glass-mosaic.

Fig. 1: Glass-mosaic-frieze from Galla Placidra's grave-church in Ravenna ‹von Quast, Die altchristlichen Bauwerke von Ravenna›. — Figs. 2—11: Glass-mosaic from St. Marcus' in Venice ‹Hessemer, Arabische und altitalienische Bauverzierungen›.

Table 10: Byzantine glass-mosaic.
(Gagarin.)
Fig: 1: Arc of the peristyle in St. Marcus' at Venice.

Byzantine iconography.

The origin of Byzantine iconography is to be searched in Palestine, especially in the monuments erected in Jerusalem and other sacred places during the 4th century, representing scenes from Christ's life. On account of the veneration paid them by the entire christianity, they quickly spread over the christian world by means of the pilgrims returning from Jerusalem. Their being imitated in the occident is understood.

At an early date certain scenes of the Old Testament had found a typical form in the Roman catacombs like Abraham's sacrifice, the children in the stove, Daniel in the lion's den etc. The new art accepted them without alteration and without adding new compositions. On the other side it threw itself with a great ardour upon the episods from the New Testament, thus soon a long row of compositions unknown hitherto grew up. From the beginning of the 5th century there date in the mosaics of that time the representations of Christ's Passion, then the crucifying, afterwards the Transfiguration appear, the last day of judgement, the Annunciation, the adoration of the Kings, Christ's circumcision, Ascension, descent of the Holy Ghost, whereas the representation of the Holy Virgin became general only since the 10th century. Especially in Kosmas' manuscript there is to be found a great deal of compositions afterwards repeated in many places, as well as many martyrs reappearing in the Byzantine Psalters.

Thus gradually the representations of the persons of the New Testament developped themselves to a firm type. Under the influence of hellenism in Asia Minor Christ had been represented as a youth without beard, with long tresses hanging down loose, in Egypt with short tresses above a broad and full face, in the whole as a hero or antic god. In Syria there was created a more real type, an older man having his face framed by a black beard, his hair parted, his eyebrows grown together, of a Jewish type. From these types Christ's type was gradually derivated in Byzantine art. Likewise the portrait of the Holy Virgin was formed. After having been oppointed the Madonna in the council of Ephesus, she appeared with a lengthened face, earnest feature and sublime attitude. At the same time in Egyptian monuments there existed the virgin Hodigiteia in an upright posture, holding in her arm the divine child and rising her other hand for praying, then the virgin Blachernitissa in half-length portrait, rising both her hands for praying, wearing upon her breast Christ's medaillon, and then the virgin Kyriotissa, upright, pressing with both her hands the divine child on her bosom, fastly the Divine Virgin sitting on the throne and holding the Divine Child upon her knees. But in all these types the face is not changing. In Kosmas there appear pictures of apostles, prophets, angels etc. who were no more modified. From there comes the aged man's type with long white hair, St. John the Baptist's type with long, black, tressed hair, black beard, bony face, holding a cross in his hand. This manuscript uniting the particularities of Alexandrian art with the productive genius of christianity seems to be the creator of Byzantine iconography.

The tendency of shaping all compositions and types in a firm manner is the weak side of Byzantine art. By exposing the typic pictures Destined for being adored by faithful people, oriental art undoubtedly has done a great creative work. But as these themes in the christians' opinion represented the doctrinal truths, i. e. possessed holy value, the new iconography, after having erected the different types, did not think any more to modify them. Nevertheless in the course of times new compositions were enriching Byzantine iconography by changing positions, by adding persons or scenes etc. Especially on account of religious purpose however, always prevailed the tendency of fixing the types; the productive working therefore was only very feeble. The artisans of the 5th and 6th century developping the new style, as to mental quality, still were closely connected with classic art; of course the Alexandrian influences were predominating, but thus exaggerating the noble attitude, the harmonic elegance of dressing and, it is true, often even symmetry. To this classical element the oriental one joined and together with it the taste for luxury. But Byzantine art was not satisfied with combining both these civilisations, it also was creative by christianity. It even was successfully endeavouring to give its creations an original physiognomy, to express the sublimity of triumphant art, God's majesty and those hopes that religion offers to humanity. Although an important part may be granted to profane art in Byzantium, yet Byzantine art was principally a religious one, for clergy profiting by it as by a mean for instruction and glorification, governed and watched over it, of which source we can derivate. After the creative epoch of the 6th century more than once a certain productive reformative activity, e. g. in the 9th and 10th, at last in the 14th century.

Already at an early time awoke that antipathy which the Jews always felt against copying of the human shape, which, you know, is a peculiarity of the Arabs. Some councils had even defended churches being decorated with wall-paintings, many bishops, too, called Christ's representation in pictures heathen customs. That were initially single protests which however constantly kept awake a certain hostility against adorning of paintings whereas the Greek mind, totally captivated by beauty consented to this. At length in the 8th century after the abuse of raising religious pictures having even passed to private houses and such pictures being absolutely worshipped like idols, a struggle lasting more than a hundred years broke out against these pictures by which the most beautiful works of art, not except manuscripts, were destroyed. Not later than 787 the culture of pictures was reestablished in the whole empire. Likewise a later repeated attack was repulsed. It is evident that in these circumstances religious art had to suffer, whilst profane art made a profit by this, for instead of religious pictures in the churches landscapes with birds etc., scenes of circusses, battles etc. were painted. Thus finally a new art was formed that was influenced very much by Arabian art. The images of saints having been reestablished, religious art, in conjunction with the renaissance which had begun in the entire art, of course, revived in a degree unlooked for and was propagated still more in the world. Now naturally quite a new iconography arose. The scenes taken from the Old Testament become more and more rare and at last wholly disappear, whereas the representations of apocalyptic passed over to the new art and were more and more develloped by it. But mostly the Christ-cycle of the New Testament was performed. In the 6th the holy actions were presented in chronological succession nearly like a ribbon transmitted upon a mural plain. Then this succession is interrupted; the compositions are adjusted to the principal festivals, partly taken from the former art, partly composed anew. The cycle taken from the Holy Virgin's life, treated mostly with a quite special predilection, since the 11th century occupies a prominent place. Nor was it unusual that the twelve scenes of the Gospel were united, thus forming a complete cycle of the holy mysteries and winning a dogmatic importance.

Like the compositions the types of the persons changed too. Now we find crooked nose, almond-shaped eyes, long, black hair falling to the shoulders, all since the beginning of the 11th century. It seems that the Byzantine artists have left the old models, returning to realism and taking portraits from the Cosmopolitism surrounding them. Likewise evident is the tendency of individualizing the faces and of giving the ideal figures firm features. Though many a thing be borrowed from the old iconography, yet Byzantine art has totally renewed itself with such an imagination and an ability of grouping the figures and a naturalistic taste that it does credit to art. Great artists created compositions, and new types kept on unchanged since then.

Byzantine cellular melting.

Enamel is a glass-mass made opaque with non-melting materials like stannid oxide or phosphate of lime and coloured with metal oxydes; which glass-mass being in a humide, refractory condition, is applied to metal and by warming is melted to a glass-like mass adherent to the metal. The French word „émaille" comes from the latin „smaltum", which on its part is probably derivated, as some learned men mean, from the old-high-German „smelzan"; the Greeks called it „Electron". The art of enamelling is very old as it is proved by finds made in

Egypte. But even in this art Byzantine art and science were able to clothe the new christian thoughts in old heathen forms, in order to come on this way to a peculiar characteristic art, the cradle of which is to be postponed to emperor Justinianus' time. As only fine gold was taken for subsoil, with regard to the more expensiv material the mass was diminished as much as possible. For this purpose on a thin basis fine goldstripes were soldered with their edge, destined to represent the drawing and to form a cell for reception of the glass-mass. Especially for the outfitting of Hagia Sophia as also for making his state-utensils of his royal household Justinianus granted his enamellers, called, as it seems, from the orient, an extended sphere of action, that was more and more enlarged by his successors. It seems that the Greek emperors did not possess a real monopoly of the art of enamelling but they certainly afforded prominent enamellers special workshops with their court, in order to be able to satisfy better their love of splendour as, you know, it was also the case with miniature painting. The time of the greatest flourishing of art of melting in the East Roman empire lasts from 850 to 1000, after service of pictures had become victorious in this battle. Undoubtedly herewith the fanaticism of people for the service of pictures being always preferred was inflamed anew; thereupon the enamellers likewise began to devote themselves to making images of saints, calling forth a competition with the mosaicists and miniature painters. They especially endeavoured to produce in their pictures as beautiful a colour of flesh as the latter did. This colour of flesh exhibits so charming a semi-transparence that the light falling in in a varied play creates innumerous half-shades and-tones giving the features a speaking vitality. Herewith art of enamelling was able to satisfy wholly all claims of iconography. First of all the cross of victory in the cathedral-treasure at Limburg as well as the older parts of Pala d'oro and the prominent pieces of the treasure at St. Marco's in Venice are proving the flourishing of the enamelling art of the 10th century. However the political weakness of the East-Roman empire in the 11th century in connexion with the loss of all the possessions in Italy, North-Africa, and Asia Minor as also the separation of both the churches could not help having an unfavourable influence on enamelling art too. That which had been art hitherto, now was dragged down to a handicraft. Technic is neglected, the colours become rough, their composition is unharmonical and glaring. The style hitherto being particular for treating figures based upon a careful observation of the reaction of the enamel-mass during being melted and growing cold is getting lost. The drawing of metal-threads degenerates into fanciful carved work. At length in the 13th century the inquiry for Byzantine cellular enamel totally finished, because there the pit-enamel had entered into a successful competition with it.

All the enamel made before the 6th century in the Roman empire either was pit- or barbarian enamel. Deepenings were poured or beaten into the metal or lifted out of it, which deepenings were filled out with a coloured glass-mass. When people were working with pit-enamel, they made a pit for each colour separating it from the others by a metal-stripe that afterwards was not taken off; but when they were working with barbarian enamel, that separating metal-stripe was omitted. The separation of the colours by metal-threads is the same as for cellular or pit-enamel, but it was obtained by different means. But in Europe no nation has meddled with cellular enamel for a longer time, even Greek enamellers in foreign countries after a short time always passed over to pit-enamel. Only quite in the far East there is found then a cellular enamel corresponding with the Byzantine material except the subsoil, that was copper there. In the times of Justinianus the commerce between the mediterranean and East-India being a very brisk one, it would be impossible to decline cellular melting to have come thence to Byzantium. The Egyptians adorned the surfaces of their trinkets with precious stones mounted between metalstripes of weak gold. These stones were held fast by striking the metal broad with the hammer. But they also had often substituted coloured glass-or putti-masses for the stones perhaps because the split stones injured independence of drawing. Further as the use of split stones in the brightest period of cellular enamel was very frequent, we may search the origin of Byzantine cellular enamel rather in Egypt than in East-Asia.

The technical art of Byzantine cellular enamel is exactly described in the monk Theophilus' Schedula diversarum artium. The German enamellers of the 11th century being experienced in making cellular melting were all pupils of Byzantine masters. This author does not mention pit-enamel. Beginning his work the enameller produces on his gold-plate a pit of 2–3 mm depth with a plain bottom. If he intends to cover the whole plain with enamel, he cuts out a piece of gold-foil exactly corresponding to the outlines of the image to be made; then he solders on it a gold-stripe put on its edge and being as broad as the thickness of the enamel is. Thus the workman obtains the pit recepting the enamel. But if only a part of the plain is to be covered with enamel, he with hammer and punches makes a deepening into the goldplate with the form the image is intended to have. Thereupon the enameller drives with a round iron little deepenings equal to the contoures into the gold, so that the drawing is to be recognized on the frontside as well as on the reverse. Then he bends thin goldstripes corresponding to this drawing and puts them with their edges on the ground. The stripes are bent in such a manner as not to be able to fall down; for straight lines two stripes are placed end to end. In order that these small stripes may not be displaced, he spreads flour moistened before, which he hardens by warming it after having put on the stripes. When a larger piece is finished, it is soldered for avoiding mistakes. When the whole work is done, the glass-masses are poured in, most of them are glass containing lead coloured with metal oxides. The more lead the glass contains the more beautiful the colours become, moreover by adding borax.

White enamel is won by adding tin oxide, blue one by cobaltic sesquioxide, green one by cupric oxide, violet one by manganese dioxide. The other colours are more difficult to be produced and reclaim a great experience. When the coloured glass-masses are made, in a hot condition they are cast into cold water, in order that they may be easily pounded in a mortar to a fine powder. This powder after having been well washed is laid with a smal spoon on the place bound for the colour in question. Then the plate is heated in a muffle of a furnace until all the colours have melted. If the mass does not completely fill out the cell, a new filling up must take place. The surface has always to be a little raised in the centre of each cell; therefore it is to be ground off except the gold stripes. Nevertheless there are also works the gold stripes of which have not been soldered fast.

The Byzantine enamels are either surrounded with the gold ground of the parts not deepened, or are showing a likewise enamelled background, which is either richly adorned with many-coloured designs or made one-coloured emerald green, it often is drawn through by a close scroll-work. It seems that the Byzantines have enamelled only upon gold, but not upon copper or silver. However they knew to adapt their works to the particularities of the material. As the iconographic rule prescribed the clothes of saint persons to appear one-coloured and without any design of design, they have increased the plaits of dress. Representing drapery by soft shades and colours was impossible for the sake of the poor palette, and because the enamel colours may not be mixed with one another for producing a clearer tone or a darker one like in painting. Only when art of smelting was decaying, instead of the drapery arranged clearly and decisively were made scrolls void of sense. By placing the gold threads near one another the enamel lying between them had a great firmness and power of resistance on account of increasing the binding surfaces and was preserved from breaking when it was cooling down.

The skill of the Byzantine enamellers concerning style was so well esteemed by the contemporaries that the miniaturists soon began to copy them. Thus Professor Kondakoff criticizing a manuscript in the National Library in Paris: „The Byzantine enamel greatly influenced the technic of the miniature painters ⟨illuminators⟩. The artist probably imitated this precious product and painted the interior between its outlines without modelling it by tones, which is impossible on enamel, but very inconvenient as to his figures being microscopally small. Therfore the fine hatching of drapery with gold serves for replacing shades and folds together. Not only illuminators, but also Italian painters and mosaicists of the flowering time of melting art in their wall mural painting and mosaics likewise imitated by gold threads the folds in the enamels formed by gold lines.

Table 11: Byzantine Enamels.

Figs. 1 and 2: Cover of a book from the treasure of St. Marcus', Venice ⟨Pasini, Il tresoro di St. Marco⟩. — Fig. 3: Dish from the same treasure ⟨See table 23, fig. 1⟩ ⟨Pasini⟩. — Figs. 4, 6 and 7: Enamel fragments from St. Ambrosius' altar in Milan ⟨Kondakow, History of the monuments of Byzantine enamel, collection A. W. Swenigorodskoi⟩. — Fig. 5: Fragment of the clothes of an image of the Holy Virgin, that no more exists ⟨Kondakow⟩.

Table 12 · Byzantine Enamels.

Fig. 1: Medallion from the bottom of the dish (Fig. 3) (Pasini, Il tresoro di St. Marco). — Figs. 2, 3, 5, 8 and 11: Vessels from the treasure of St. Marco, Venice (Pasini). — Figs. 9, 13 and 14: Fragments of shrines of saints (Kondakow, History of the monuments of Byzantine enamel, collection A. W. Swenigorodskoi). — Figs. 10 and 12: Earring found in Kiew (Kondakow). — Fig. 15: Byzantine candlestick from the 11th century (Prince Gagarin, Recueil d'ornaments et d'architecture Byzantins, Georgiens et Russes). — Fig. 16: Chain for the neck, found in Kiew (Kondakow).

Byzantine Illuminating (miniature painting).

However important the work of monumental art, fresco-painting, and mosaics may be, they are not sufficient for giving a complete idea of that which Byzantine art is, unless a large number of illustrated manuscripts had remained. In contrast with the decoration of places of worship, inspected by clergymen, there was a rather considerable liberty in manuscript painting which has a more individual and profane character. At the time of iconoclasting the pursued orthodoxy took refuge with illumination, in which in the 9th and 10th century a revival following the old Alexandrine models, together with classical influences came to pass. This new miniature painting created works in much larger variety than those of the high art, and the study of them is extremely instructive for becoming acquainted with the tendencies of the various epochs of art. According to the meaning of some learned men, the artists of the 9th and 10th century would have been satisfied with copying the works of the 4th till 6th century, without having created any new one. But in comparing different copies with one another imitated a common model, we may distinguish quite evident differences, consequently there is proved that these artists have not copied without thinking, but endeavoured to accommodate the old models to the taste of their time. Likewise the artists of this renaissance exhibit anatomical knowledge that created correct modelling, exact drawing, and a warm colorit full of life, feeling and taste for observing and reality. At last there may not be denied a relationship with that renaissance which took place in the other arts. Generally there exist no intimate relations between illustrations and texts; those even very often remain in comprehensible if we do not read the text; we should say, that they were often suggested to the artist by a clergyman.

After the question of pictures having been decided, the victory of orthodoxy against the middle of the 9th century of course produced a great theological and monastic movement, from which the Psalter adorned with marginal vignettes proceeded, amongst others that of the Physiologus, that of Job of Venice etc. This triumph of orthodoxy, however, was not able to stop the impuls of the new renaissance, and the taste for a literary and profane art, that had been always supprimed by orthodoxy in Byzantium, prevailed. The artists working for the court and for the aristocracy constantly went farther back to the former classical models, so that in the manuscripts of this epoch antique figures, mythological scenes, classical allegories are prevailing, which, although transformed according to Byzantine taste, never can deny their Byzantine origin. The iconoclasts had implanted to the later generation the taste for somptuous ornamentation which in the manuscripts of the Macedonian epoch with their title-pages is manifested in garlands, animals, birds, and elegant initials. But profane art more and more fell into the influence of orthodoxy that at an early date had taken possession of miniature painting in order to govern the masses. After having let them liberty for some time, orthodoxy then forced them into rigid, unviolable forms which remained them till the ruin of the Greek empire.

Table 13: Byzantine Illuminating (Miniature painting)

Figs. 1 and 8: From a manuscript from the 13th century ‹Gagarin, Collection of ancient Byzantine and Russian ornaments›. — Figs. 2, 4, 6, 10 and 12: From manuscripts from the 12th century in the Bibliothèque Nationale, Paris. — Fig. 3: From a Greek manuscript in St. Marcus' Library, Venice, dating from the 11th century. — Fig. 5. From a manuscript from the 10th century ‹Gagarin›. — Figs. 7 and 11: Initials from the Breviorium Cassinense in Mazarin's Library, Paris ‹Petzendorfer Schriftenatlas›. — Fig. 9: From a manuscript from the 6th century in the Library at Turin. — Fig. 13: From a manuscript in the Bibliothèque Nationale, Paris, from the 9th century.

Byzantine Silk-weaving.

Already in the 4th millennium silk was known in China and generally spread in the third millennium, but for reasons of political economy it was only permitted to export it as a finished tissue. It were the Serians that brought silk drapery via Ceylon and Turkestan to the west and exchanged them for ivory, precious stones etc. to the Persians and Phœnicians who for their part sold them to the Egyptians, Greeks etc. Although silk drapery then was decorated in various colours, yet its principal value consisted in its brightness and lightness.

But Chinese silk drapery did not comply with the liking of the Mediterranean nations who, therefore, as Plinius states, by separating the tissue and splitting its threads made transparent clothes of it. No sooner than in the 4th century A. C. non-woven silk came to Europe, whereupon in a short time large quantities of silk webs adapted to European taste came forth in trade. With regard to the high price of silk textiles, these were mostly used only as an application upon linen or cotton tissue. Purely silk texture put on chiefly by women, was to be provided but for the wealthiest and highest classes of society, for in the third century for the same weight of silk there was still paid in gold.

Only after feeding silk worms having been imported in Europe, silk became more and more cheaper. In 555 A. C. two Persian monks from Serinda, situated on the upper Indus, brought eggs of silk worms in their sticks with themselves, and two years later they fetched seed of the mulberry-tree necessary for silk worm feeding. By this the principal condition for a silk manufacture wholly independent from China was given. Corresponding with the technical improvements of the weaving-loom more and more richly figured textiles came out, which, however, in an opposite proportion with their splendid colours became worse and worse in their figures. At the time of Constantinus, the Persians under the reign of Sandor II. invaded the empire, introducing with themselves weavers from Mesopotamia to Susa, who now developped that Sassanidian silk manufactury which formerly was in a very flowering state.

But this Sassanidian textile art wholly leaned against the Roman, Greek, Egyptian and Syrian one, being chiefly dependent on the export to the west. Owing to its situation between east and west, in relationship with the world market, Alexandria soon was the principal staple place for richer silk tissues.

Emperor Justinianus when perceiving the rapid prospering of silk industry, raised it to a monopoly, and all the existing manufactories were transformed to imperial establishments, for which reason these textiles got a certain monotony. Most frequently strewed figures were employed, but always with such a virtuosity as to colour and drawing, that they belong to the best that silk manufacture has ever produced and that they were valued equal to the Chinese ones. This Byzantine silk drapery was generally used in the occident until the latest middle ages. At the same time in Arabia during the 7th and 8th century the same manufactory had sprung up which finally on occount of the particular Arabian ornamentation and its splendid polychromy even served as a model the Greek silk technics. Sicilian-Saracenic silk manufactory, too, got to a high flower and spread its products all over the occident.

In the time of the transition from classic art to Byzantine one, which epoch is often called old christian art, in drawing and colouring the reminiscences of the dying Roman-Hellenic art are prevailing. The colour of silk drapery still is white upon black, seldom black upon white, and graduations of grew, brown, and light pink. When christianity, however, was appointed state religion, a certain stiffening of the figures already happened, christian symbols being employed at once. At this time ornaments cut out in forms of cycles and ovals appeared, which soon were manufactured, and at last in the 6th century a drapery came to pass, which was generally put on, adorned with strewed figures the intervals of which were supplied with corresponding ornaments.

The Justinian epoch especially excels in a superior style of drawing and the former roundnesses pass to gradations in form of a staircase, so that their motives often are not to be perceived. It is in this epoch that the funeral veils of Achmim and the use of monograms are in flower.

By removing the capital from Rome to Byzantium there happened a combination of Roman art with oriental art cultivating a bright splendour of colours. The resulting polychromy that now was to be dominating especially exhibited in garments. The principle of oriental art to effect more by splendour of colours than by drawing chiefly raised the value of damasks either of linen wefts with silk threads woven in, or of tissues wholly made of silk. Likewise the strewed figures employed by the Greeks, afterwards by the Romans for light women clothes were again fashionable.

But drawing that grew wild and together with it shrill and sharp colouring more and more became prevalent up to the 11th century, which decay of drawing people tried to hide by enlarging the motives. Nevertheless we may by no means deny that even in those compositions of colours carried to excess, art still was existing, for it is this mastership of using colours that we are missing still nowadays. In this increase of colouring we cannot mistake Arabian influence, principally since the conquest of Egypt. Especially characteristic in this Byzantine-Arabian textile art is the prevailing of the yellow colour and the complicate intricacy of lines ‹saffron is Allah's favourite colour›.

Table 14: Byzantine Drapery.

Fig. 1: Byzantine drapery, now in the Louvre, Paris ‹Cahier et Martin, Melanges d'archéologie›. — Fig. 2: Byzantine drapery in the British Museum ‹Cahier et Martin›. — Fig. 3: Byzantine drapery from St. Walpurgis' grave at Eichstädt ‹Cahier et Martin›. — Fig. 4: Tissue from a priestly vestment of St. Willibrord, Eichstädt ‹Cahier et Martin›. — Figs. 5—8: Remainders of web from Bishop Gunther of Bamberg's grave ‹Cahier et Martin›. — Fig. 9: Texture in the Victoria-Albert-Museum, London, representing a prince with his aureole on a quadriga ‹a carriage drawn by four horses›. 8th—10th. century ‹Lessing›.

Table 15: Byzantine Drapery.

Figs. 1—3, 6, 7, 9 and 10: Byzantine silk tissue ‹Fischbach›. — Fig. 4: Drapery in the treasure of the Cathedral of Aachen and in the Louvre, Paris ‹Cahier et Martin›. — Fig. 5: Drapery from St. Madelbertha's reliquary in the Cathedral of Liège, 10th century ‹Lessing›. — Fig. 8: Drapery from Charlemagne's reliquary in Aachen ‹Cahier et Martin›.

The Russian Ornament.

Table 16: Russian miniature painting of Byzantine precedence.

‹Butovsky, Histoire de l'ornement russe.)

Figs. 1, 8, 10, 12—18: Paintings from the 11th century. — Figs. 2—4 and 6: Paintings from the 12th century. — Figs. 7, 9, 11, 19 and 20: Paintings from the 15th century.

Table 17: Russian miniature painting (Irish-Scandinavian).

Figs. 1, 2, 4—6, 10—12, 18 and 22: Paintings from the 13th and 14th century. — Figs. 7—9, 13—17, 20 and 21: Paintings from the 14th century. — Figs. 3 and 19: Paintings from the 15th century.

The Irish-Celtic Ornament.

Table 18: Miniature painting (illuminating).

(Wyatt, M. D., The art of illuminating.)

Figs. 1—4, 7, 12 and 15: Head-pieces and ledges from the 7th century in a gospel-book of Durrow in Trinity College, Dublin. — Figs. 5, 10, 11 and 14: Ledge from: The Royal Psamist, 8th century. — Figs. 6, 8 and 9: From a painted page of the Latin Bible in the Monastery Library, St. Gallen, 9th century. — Fig. 13: Page from the Arundel-Psalter, psalm 101, British Museum, 11th century.

Table 19: Illuminating.

(Wyatt, M. D., The art of illuminating.)

Figs. 1, 3 and 8: From St. Augustinus' Psalter, British Museum, from the 7th century. — Fig. 2: From David's spalms in St. John's College, Cambridge, 9th century. — Fig. 4: Beginning of the Gospel according to St. Matthew, St. Petersburg Gospel-book, 8th century. — Fig. 5: Initial of the beginning of a psalter, British Museum, 10th century. — Figs. 6 and 7: From St. Matthew's and St. John's Gospels in the Public Library, Cambridge.

The Romanesque Ornament in Italy.

The frescos in South Italy.

At the end of the 9th century, when Byzantium had reconquered and maintained South Italy, it transformed her to a new Great Greece both in language and in religion, and even after she was lost again, yet till the 14th century this influence existed under the reign of the Norman princes and of the princes of the house of Anjou. Especially monks here settled everywhere, living partly in large monasteries, partly in isolated cells built in rocks. The centre of all these hermitages was a chapel underground decorated with pictures. On account of the neighbourhood of Greece, of the long Byzantine reign, of the large trade with the orient and with the Greek colonies still existing there, a quite peculiar artistic school developped, which, dating from the 10th till 12th century, reminds us of Byzantium not only by inscriptions, but also by style and iconography. There are mostly scenes from the Gospel, Saints, whom devout people are kneeling before etc. The artist seems to have had the idea to ornament a large church in this smoll place. Nay, in many a cell there are to be found different pictures separated from each other by a pile of plaster dating from quite different times. We may, indeed, perceive little differences in style and technics, but not as to inspiration. Nevertheless we may state a not unimportant variety between the pictures from the 11th and 12th century and those from later epochs; the former ones exhibit principally a distinct want of colours, being mostly painted in neutral and blunt colours, without any quick one, nearly monochrome. It is Cappadocia and South Italy that represent the popular and current formule of Byzantine fresco painting.

Table 20: Paintings in fresco from the 11th century.

(Salazaro, Monumenti della Italia meridionale.) (Monuments from South Italy.)

Fig. 1: Painting from the sanctuary of San Angelo's Basilica, Formis. — Figs. 2—5: Paintings from St. Clemente's church underground, Rome.

Table 21: Paintings in fresco from the 12th century.

(Salazaro, Monumenti della Italia meridionale.)

Fig. 1: Fresco in St. Basilio's Crypt, Brindisi. — Figs. 2, 4 and 5: Frescos in St. Giovanni's Crypt, Venere. — Fig. 3: Santa Madonna de Flumine.

Table 22: Glass-mosaics from the 12th century.

(Salazaro, Monumenti della Italia meridionale.)

Fig. 1: Mosaic from St. Gregorio's Church, Messina. — Fig. 2: Mosaic in the Basilica of Monreale, Palermo. — Fig. 3: Mosaic in King's Chapel, Palermo.

Table 23: Paintings on wood.

(Gailhaband, L'architecture du Ve au XVIIe siècle.)

Figs. 1—8: Painted timbering of the roof from St. Miniato's near Florence.

Table 24: Illuminating.

(Paleography artistica di Monte Cassino.)

Figs. 1, 3, 7, 8 and 12: Latin initials from the 12th century. — Fig. 2: Longobardian initial from the 11th century. — Figs. 4, 5, 6 and 9: Latin initials from the 11th century. — Figs. 10, 11, 14, 15 and 16: Longobardian initials from the 13th century. — Fig. 13: Latin initial from the 9th century.

Table 25: Saracenic-Norman paintings.

Figs. 1, 3, 10 and 11: Fragments of the ceiling paintings in the aisles of Capella Palatina, Palermo (Kutschmann, Meisterwerke sarazenisch-normannischer Kunst in Sizilien und Unteritalien). — Figs. 2, 5 and 6: Ceiling-painting in the central aisle of St. Pietro's Chapel, Palermo (Terzi, La capella di San Pietro in Palermo). — Fig. 4: Painted coffer of the ceiling of the lower choir in the Cathedral of Monreale (Kutschmann). — Figs. 7—9: Painting on the ceiling of a hall in the palace of Manfred of Chiaramonte, Palermo (Gailhaband, L'architecture du Ve au XVIIe siècle).

Table 26: Saracenic-Norman Webs.

(Fischbach, Ornamente der Gewebe [Ornaments of the wefts].)

Fig. 1: Silk drapery from the 13th century, now in the Museum für Kunst und Industrie. — Fig. 2: Silk drapery from the 11th century, now in the Museum, Vienna. — Figs. 3 and 6: Silk weaving from the 13th century, probably Lucresian imitation of Saracenic webs, now in Vienna, respectively in Halberstadt. — Fig. 4: Silk drapery from the 13th century, now in Vienna, it is possible, that it dates from Alexandria. — Fig. 5: Silk web from the 11th century, used for gala suit. — Figs. 7 and 8: Silk weaving from the 13th century, now in Danzig, its former motive with an Arabian signature is painted on a pillar in St. Bavo's Church, Harlem. — Fig. 9: Palermitanian tissue from the 12th century, now in Danzig.

The Romanesque Ornament in Germany.

German Copper=melting.

During the migration of nations instead of melted glassy flux, as a coloured ornament of metal cell=mosaic, that is also called vitrification of cells or verroterie, was executed: flat, mostly red or green stones, flat glass=pieces in gold cells, too, for instance the gold shallow cup in the treasure of Pietrosa, Bukarest ⟨see Part I, table 59, fig. 1⟩, a great number of disk fibulas found in Germany etc. ⟨see table 1⟩, the Merovingian Childerich's sword ⟨see table 1⟩, the Visigothic votive crowns of Guarrazar near Toledo from the 7th century ⟨see table 2⟩ etc. But this cell=mosaic may be considered not at all a barbarian imitation of cell=melting, as the Byzantine artists have it employed even in the flowering time of their cell=melting. In France and in Italy this cell=mosaic was substituted by cell=melting already at Charlemagne's time, whereas in Germany no example of it has remained from this period. Only the Greek princess Theophona's marriage with Otto II. in 972 caused the import of Byzantine gold enamel in Germany. Soon after her arrival, in St. Benedict's Monastery at Treves under the protection of the art=loving bishop Egbert ⟨977 – 993⟩ a factory for cell=melting developped following Byzantine models. The chief work of art produced in this factory was the Echternach Codex made under the empress' direct cooperation, which, however, cannot even hide old home tradition. As no remainder of cell=mosaic from the Carolingian epoch has been conserved in Germany, we must suppose this mosaic that was employed in the factory of Treves to have been made according to Byzantine models too.

For the longest time those of the monastery factories kept which produced cell=melting in gold in Byzantine manner, those of the Benedictine monks of St. Pantaleon's at Cologne, but they, too, did not renounce employing of copper=melting at the same time. After the Saxon dynasty, that had always protected Byzantine art, had died out, this art decayed, before in the first half of the 12th century the domestic manner of copper=melting reached its highest point.

In the ecclesiastical goldsmith's art of the Rhenish country in the 12th century exclusively pit=melting was employed, in which on a copper plate a deepening for the enamel is incased. The separation of the colours is done by several fillets that are left on the plate as they are, but this also may be effected by soldering fillets in the pit, by which mixed pit=enamel is won. For using both these sorts of enamel, however, in the 12th century by no means tradition, dependence on Byzantium, or the degree of ability, but actual opportunity and the artist's free will alone are decisive. The difference between Byzantine and German art of melting in no way lies in these various proceedings, but in the material, in using copper instead of fine gold, employed by the Byzantine artists. Consequently the name of gold=melting for Byzantine art and the denomination of copper=melting for German art would be more suitable than the terms of cell=

resp. pit-enamel. On changing the material the specific qualities of copper-melting and of its terms depend. First of all those transparent glass-fluxes which are possible on gold or silver have to disappear and have to be substituted by opaque glass-fluxes. With this disappearing of fine gold the want of sparing the material also disappears, i. e. the want of using thin sheet-metal for subsoil, in which small pits may be dug. In a thick copper plate the pits can be easily incided according to the drawing. Of course the reduction in price for the material also secured a better market to Rhenish melting-work, although this country was overstocked by copper-melting articles from Limoges. Both the centres, Limoges and Cologne seem to have developped quite independently from each other. The difference between their products lies in the ornaments alone, not at all in the colours.

The centre of German copper-melting is St. Pantaleon's Monastery in Cologne, then in a large distance Aachen, Treves, and Hildesheim follow. Only the Walloon Meuse-school managed by laymen with a certain regard may be considered superior to Cologne for his producing chiefly figural works. The oldest master of copper-melting work seems to be Eilbertus Coloniensis in St. Pantaleon's, the most important one in Germany during the middle ages, however, was, no doubt, the Benedictine monk Friedericus at the same place.

Friedericus' older works were executed on gold ground, but his later ones on enamel ground, according to the general development of style and to an augmentation of polychromy. Instead of this, the ornament had to be fixed by a metal fillet in order to be separated from the ground. Answering this purpose consequently the whole ornament had to be modified, and as a supplement of the former oak- and thistle-leaves forms of leaves with smooth and more rounded outlines were brought to. For this end the intricated Romanesque figures of leaves and tendrils with their broad ribbonlike stalks were most fitted. Indeed, this ornament is inferior in freshness and in individuality to the former naturalistik foliage of Friedericus. People tried to diminish this impression by melting glass-fluxes of various colours in the very same pit without distant fillets, which proceeding owing to the Meuse was called polychrome, picturesque melting coat of paint. The shading from dark blue to light blue and white, from blue to green and yellow in the works coming from Cologne is so nicely made that it might not have been better executed by an illuminator with his pencil. But at this proceeding colours were put on only once and any deepening still remaining was filled out with a colourless transparent glass-flux. Thence comes that clear brightness of polish so many melting works of Cologne are excelling in and a softness of the transitions of colours. Although this proceeding then was no secret, yet the works of Friedericus' pupils were for distant from their master's.

The fact that in the little parish-church at Siegburg five large coffins containing relics, two temple-doors and five reliquaries are kept is the cause that the former Benedictine Abbey of Siegburg was supposed to be a melting-factory too. But it is manifest, that all the articles for Siegburg were made in Cologne and in Limoges.

The principal artist of the Meuse-school was Godefroid de Claire, a Walloon; consequently this school cannot be accounted to German applied art, although the lower Lorraine then belonged to the German empire. This school has a strongly marked character of style, which especially exhibits in its figural melting-works. Godefroid de Claire was born at Huy on Meuse ⟨between Liège and Namur⟩ and returned to his native town in 1173 after a 27 years' activity in order to join the association of the monastery of Neufmostier.

The greatest artist of melting art was Magister Nicolaus of Verdun of whom but two works are kept: the head-piece of the altar in the chapter of canons in Klosterneuburg near Vienna from 1181 und St. Mary's shrine in Tournay from 1205.

The former consists of fifty-one large tables made by pit-melting ⟨six of which were added on the occasion of an enlargement in 1329⟩ arranged in three ranks above one another containing paintings of Christ's life and typological parallels from the Old Testament. Into the wedges of its trefoil-archs angel's heads, prophets, allegories are inserted. The principal force of this master lies in his drawing which his technic is according to. His figures are left free in gilding and put all on a blue ground of melting; all the rest is enamelled in several colours in the usual manner of shading of the Lotharingian school. The outlines of the figures with their wonderful drapery is incided into deep pits and melted out with blue or red glass-fluxes. This work has a high artificial importance, especially as to the power of its expression, the hardness of gestures and the admirable beauty of garment founded on an ardent study of nature.

It is easily comprehensible that in the school of Aachen on account of its situation between Cologne and Maastricht the influences of both these schools have gained prevalence. The time of origin of the chief works in this school can be exactly fixed; it begins with the finishing of Charles' shrine in 1215 and ends with the finishing of St. Elizabeth's shrine in 1249. Characteristic for this school is a filigrane formed in plastic manner with a rich trimming with stones. More difficult than the information about the Renish workshops of art is that one about the Low-Saxon factories, as exactly dated works of art are missing, but during the second half of the 12th century, Hildesheim seems to have been their centre. In Westphalia, too, in the 12th century a factory for pit-melting has probably existed.

Pit-melting on copper in Germany had passed to the 14th century only with few moderate productions, e. g. Gothic ciboria, little filling plates in reliquaries or in other ecclesiastic utensils. Melting art on copper in the 14th century was supplanted by melting in deep incisions on silver which had already begun in Siena and Paris before 1300. Transparent enamelling on silver ground in a manner of shallow relief is a nobler, though durable work than German-Romanesque copper-melting. People now were no more content with the effect of plain containing a drawing engraved with lines, but by flat modelling which in its graduations was carefully considered, they tried to make a perfectly plastic image the effect of which was still augmented by transparent glass-fluxes covering the whole representation ⟨without fillets for the single colours⟩, for in the spots deeply dug the colour appears in a darker and more intensive degree like a shade, where as on the elevated spots the silver is shining through. This manner of melting work gradually developped from copper melting on account of the predilection of Gothic goldsmith's art for silver, for that transparent glass-fluxes might be used, which, however, was impossible for copper.

Table 27: German melting-work on copper.

⟨Falke und Frauberger, Deutsche Schmelzarbeiten des Mittelalters und andre Kunstwerke der Kunsthistorischen Austellung zu Düsseldorf 1902—1904.⟩ ⟨Falke and Frauberger, German melting-work of the middle ages and other works of art of the Exposition for history of art, Düsseldorf 1902—1904.⟩

Figs. 1, 3, 5—7: From St. Ursula's shrine, Cologne, made by Friedericus in 1170. — Figs. 2, 4, 8—12, 14 and 15: From St. Maurinus' shrine, Cologne, made by Friedericus in 1180. — Fig. 13: Plate from the ancient altar of Remartus at Stablo, made by Godefroid de Claire in 1150, now in the Museum of Sigmaringen. — Figs. 16—21: From St. Albinus' shrine in Cologne 1186. — Figs. 22—25: Decoration wound upon a pillar from St. Anno's shrine, Siegburg, made in Cologne about 1183.

Glass-painting.

On account of the rapid increase of mural painting in Romanesque churches it is evident that drapery covering the windows was no longer suitable, and that people endeavoured to get pictures, too, instead of them. Thus they got to glass-painting the first condition for which is bordering coloured panes with pliant lead-frames. With regard to the more intensive effect that light shining through something produces in contrast with reflected one on the retina of our eyes, plains are more separately enlarged and consequently outlines are modified. This fact has a great influence on covering something with lead which once appears as an outline, but then wholly disappears again. For reason of this phenomenon, owing to the increasing of the figures in the larger windows of the 13th century lead-frames might be put even through human faces in them without producing a disadvantageous effect, as the light shining through surpasses in lustre the distinct outlines within one colour.

Lead-framed windows are mentioned at first in the 10th century, accordingly we may hardly suppose this art to date farther back. Archbishop Adalbero of Rheims ⟨969 – 988⟩ is said for the first time to have outfitted his church with coloured windows that were richly adorned with pictures which, however, do not exist now. Thereupon Bavaria follows with well conserved works. Abbot Gozbert of Tegernsee ⟨982 till 1001⟩ thanked in a letter addressed to count Arnold, about whose personality, however, nothing is known, for having outfitted the windows of his monastery-church till then covered with drapery, with pictures of coloured glass. Then at the time of the successor of that abbot ⟨1003 till 1012⟩ a renowned monastery-school for glass-pictures arose in Tegernsee; one of the most celebrated artists of this school was the monk Werinher ⟨1068 till 1091⟩. Certainly the oldest panes having still stained figures on a white ground are those in the Cathedral of Augsburg, which, however, are attributed to the 12th and 13th century; but they probably date from this time of beginning glass-painting we are speaking of, as at this period generally a blue ground was usual. Already at the end of the 11th century glass-painting in Saxon art of monastery was rather frequent. Whilst till this time outlines and line-drawing of garments were executed in black lead burnt in with strokes equally thick, Theophilus already gives exact instructions for graduating black lead-painting with a thick and thin coat of paint and for erasing both inscriptions and ornaments out of black-covered plains with the shaft of the pencil. In France the oldest existing remainders are those of the windows of St. Denis', which Abbot Juggerius ordered to be made from 1140 'till 1144. By the very same artist the three large windows on the west side of the Cathedral of Chartres were executed too. Its figures spread out at full length in their faces exhibit imposing gravity bounding to stiffness. Their arms are lying, closely to the body, and only in their hands motion is expressed. The shading is very carefully made, but the composition is clumsy. Documents exist only from the 11th century in which epoch glass was thick up to five millimetres, irregular, dark-green like bottle-glass and consisting of pieces of no more than twelve centimetres of extension. There were five sorts of glass stained in the mass: red, blue, yellow, green and violet. Thick red glass losing its transparency consisted of ordinary pane-glass with a fine red cover; usual glass, being a little yellow was used for representing fleshy parts of the human body. The shades were painted with a powder tempered with iron peroxide or manganese dioxide and mixed with turpentine-oil, lavender-water or gum as well as the outlines. This mass, when burned, melts and closely joins the glass.

The oldest windows of churches were often shut by perforated stone slabs; afterwards the single glass plates were joined with one another by ledges of lead with a groove for the glass, serving at once for fixing the outlines. The composition was executed on a cartoon corresponding to which the single glasses were shut and painted. The cutting of glass was done with a glowing pointed iron; no sooner than in the 16th century diamonds were employed for glass-cutting.

As each drawing after the ruin of the Roman empire, as those dating from the 11th and 12th century became clumsy, approaching Byzantine art, without modulation, without perspective. Exact descriptions of glass-painting were given by Eraclius and by the monk Theophilus, the former being a Greek domiciled in Rome, the latter a German.

Together with the development of Romanism to Gothic art, of course, the style of glass-painting was to be wholly modified, as the narrow, high windows of Gothic art requested tall figures too, that were painted upon a ground light grew with brilliant figures. Naturally the first workshops for church glass-picture were to be found in the monasteries showing quick progresses no sooner than they passed into the hands of laymen.

The Romanesque window throughout exhibits the same type, i. e. straightly amounting jambs joined by a semi-circle, but of very different size. As for technical reasons the glass plates composed in mosaic work could be made but in little dimensions, in order to be not pressed in by the wind, it was necessary to divide larger windows by iron storm poles horizontally and vertically in suitable fields which, however, often injures composition. Only towards the end of the 12th century a more liberal meaning begins to take place, and the former narrowing schematism is rejected. The expression of the face gains in vivacity, the attitudes, too, become more unaffected. Garments have a lively drapery, but afterwards accept crumpled forms. The single figures of the compositions seem to be separated from each other, so that they get a great distinctness and clearness. Shading successively gives way to strokes vigourously brought to, but there is to be noted a tendency for a representation of especially flexible limbs. In the 7th decennium of the 13th century as a link between the coloured carpet-windows and the grew-painted windows such ones appear that interrupt the grew ornamentation by some stained glasses like armorial bearings etc.

When during the epoch of early Gothic art the large French cathedrals approached their achievement, glass-paintings were executed in a great quantity, but after in 1250 their management was removed from Chartres to Paris, soon a distinct diminution happened, and the production of mosaic-windows made of blue and red glasses was more and more attended to.

Grew-painting was much promoted by the Cistercians to whom coloured windows were defended up to the 12th century.

The types and garments of Byzantine art are more and more disappearing and coming back to nature, in the faces we may perceive a religious expression. Though drawing still was incorrect, composition was very quick. The more Gothic art fixed in the minds, the more Byzantinism gave way, for the painters now sacrified the reality of colours to the general harmony, the details to the whole. Then artistic carved work came forth, the medallions made in the narrow conception of Romanism disappeared and the whole espace was filled with a composition on a grand scale.

The Cathedral of Cologne consecrated in 1322 sets a good example to glass-painting, as Duke John I. of Brabant together with Count Thierry of Cleve and many patricians of Cologne presented glass-pictures to the city. Since these glasses were small and thick and the lead-ledges soldered with tin and grooved on both sides were drawn in the very same colour, such windows had a great solidity, particularly, as they were screwed with iron cross-poles in an iron frame of 3 – 4′ in width and 2 – 3′ in height. The most usual colours were blue, red, and yellow, less green, still more rarely violet, the harmony of colours being strictly observed. In the middle of the 14th century, the invention of the silver-yellow effected a special technic considerably simplifying the skeleton of lead and iron. The drawing modelled with brown together with some silver-yellow produced a new kind of grisaille. This silver-yellow is won by tempering calcined ochre with chlorine or sulphide of silver with water. After having been burnt the ochre is scratched away with a knife, and there remains a nice yellow, the tone of which is dependent on the quantity of the employed silver. In the 15th century van Eyck, brothers, discovered transferring by differently stained glasses by which each colour may be produced in each tone. The efficacy and harmony of colours, it is true, was diminshed by this, but things soon were overdriven, and there were made even glasses with seven coats. At last the intermediate pillars were no more regarded and the composition was enlarged over the whole window. Instead of the decorative edges perspective architectures similar to the Pompeian mural paintings were used.

In the 15th century the religious character of glass-painting more and more receded into the background, this art becoming a more laical one at the time of Renaissance.

Table 28: Glass-paintings.

⟨H. Kolb, Glasmalereien des Mittelalters und der Renaissance.⟩ ⟨Glass-paintings during the middle ages and the Renaissance.⟩

Fig. 1: From a window of the City parish Church, Steyr ⟨Steiermark⟩ 1300. — Fig. 2. Rose from Strassburg Cathedral, end of the 13th century. — Fig. 3: From a window in the middle nave of Strassburg Cathedral, 1300. — Fig. 4: Window from the collegiate Church, Wimpfen in Thuringia, now in the ⟨Grand-ducal⟩ Museum, Darmstadt, 13. century. — Fig. 5: Trimming from Strassburg Cathedral, end of the 13th century. — Figs. 6 and 8: Window from St. Elizabeth's Church, Marburg, end of the 13th century. — Fig. 7: Window from St. Cunibert's Church, Cologne, 13th century. — Figs: 9—11: Trimmings from St. Cunibert's, Cologne, 13th century.

Table 29: Romanesque Ceiling- and mural paintings.

⟨Bormann, Aufnahmen mittelalterlicher Wand- und Deckenmalereien in Deutschland.⟩ ⟨Photographs of mural and ceiling-paintings from the middle ages in Germany.⟩

Fig. 1: Soffit from the choir of St. Peter's, Schleswig, end of the 13th century. — Figs. 2 and 5: Border of an altar-niche in Liebfrauenkirche ⟨The Holy Virgin's Church⟩, Halberstadt, end of the 13th century. — Fig. 3: Frieze from the choir of the Cathedral, Braunschweig, middle of the 13th century. — Fig. 4: Picture from the Long House of St. Severus', Boppard, 1230. — Figs. 6, 7 and 15: Picture from the window-niches of St. Catherine's Chapel of Castle Hocheppau 1140. — Fig. 8: Painting from St. Nicolaus', Windischmatrei ⟨Tirol⟩, 13th century. — Fig. 9: Picture in the Karner's Rotunda, Hartberg in Steiermark, 13th century. — Figs. 10 and 11: Picture on the ceiling of St. Maria zur Höhe ⟨St. Mary's at the summit⟩, Soest, beginning of the 13th century. — Fig. 12: Ceiling picture in St. Michael's, Hildesheim, 13th century. — Fig. 13: Picture from the choir of the Cathedral, Braunschweig, middle of the 13th century. — Figs. 14 and 16: Pictures from the choir of the nuns in the monastery of Gurk, Kärnten, middle of the 13th century.

Table 30: Illuminating.

Figs. 1, 5, 12 and 14: Initials from manuscripts from the 11th century ⟨Wildling, Bücherornamentik [Decoration of books]⟩. — Figs. 6—9 and 11: From a manuscript: Josephus, Antiquitates judaicae ⟨Jewish antiquities⟩ from the 12th century in the Royal Library, Stuttgart ⟨Petzendorfer, Schriftenatlas⟩. — Fig. 10: From a manuscript from the 11th century ⟨Lacroix et Seré, Le moyen âge et la renaissance⟩.

The Scandinavian-Romanesque Ornament.

Gobelin-painting in Norway.

Already in the old northern legends and poems is said that Gudrun wove carpets with representations from the life in war and peace for Thora, that Brunhild filled with a passionate love for Sigurd had pleasure in embroidering with her needle his heroic deeds by illustrations that still for a long time afterwards were represented on tapestries. In the churches, too, on special festival days carpets were hung up as it is proved by still existing iron nails used for this purpose. The high age of this industry in Norway is shown by a carpet of 2 metres in length and of 1,20 metre in broad, shortly found between two floorings, when the wooden church in Hedemarken was pulled down. For fixing its age there serve arms and single parts of an armour which are the same as those on the carpet of Bayeux dating about from 1100. Its architectonics also show Romanesque style. According to other things found, we may argue woven carpets to have been employed in the later times too.

Besides these figurative carpets hardly conserved in a great number there still are very old figured carpets and pillow-slips having, however, likewise representations of animals arranged in the ornamentation.

Table 31: Gobelin drapery from the middle ages.

Figs. 1, 2 and 3: Later woven pillow-cases in the museum of Christiania ⟨H. Grosch, Altnorwegische Teppichmuster [Old-Norwegian designs of carpets]⟩. — Fig. 4: Carpet from the church in Hedemarken from the 11th century ⟨Grosch⟩. — Figs. 5 and 6: Carpets from the 11th century ⟨Lacroix et Seré, Le moyen âge et la renaissance⟩.

The Ornament in Spain during the middle ages.

Table 32: Byzantine-Romanesque utensils for worship from the Monastery of San Domingo de Silos.

(Monumentos de España.)

Figs. 1, 2, 3 and 5: Shrine for relics. — Fig. 4: Dish formerly used by St. Domingo. — Figs. 6 and 7: Shrine for relics in the style of transition.

Table 33: Painted ornaments on stones in the style of transition.

(Monumentos de España.)

Fig. 1: Abbot Aparicio's tomb, † 1274, in the old Cathedral of Salamanca. — Figs. 2—5: Links from Donna Elena's ⟨† 1272⟩ sepulchre, in the same Cathedral.

Table 34: Spanish illuminating of various epochs.

(Monumentos de España.)

Figs. 1, 3—7: Initials from the Codex of the National Library, Madrid. — Fig. 2: The symbolical cross generally used in the early middle ages containing α and ω and the four evangelists according to the book: In Apokalypsiu composed by Beato in Liébana towards the end of the 8th century, rewritten by monk Albino in St. Millan de la Cogulla in 1178.

Table 35: Glass-painting.
(Monumentos de España.)

Fig. 1: Window from the nave in the Cathedral of Toledo. — Figs. 2 and 3: Remainders of glass-pictures from St. Juan de los Reyes' monastery.

The medieval ornament in France.

Mural painting.

The origin of French mural painting lies in Roman painting that was dominating in France till the great migration of people. Gradually from the traditions of the Merovingian epoch kept in the monasteries, a new art developped which gave way to the influence of Byzantine art more and more enlarging, after the political situation had got smooth. Although the monumental structures from this epoch have been destroyed a long time ago, from manuscripts still existing we yet possess an exact knowledge about painting during this period.

In the pictures of the oldest epoch the figures of heathenism are mixed with those of christianism. For instance Christ was often represented like Orpheus playing his zither and taming lions with his music, often like a young shepherd carrying a straying lamb on his shoulders, often like a phoenix being perched on a palm-tree, often like a fish. These allegories become more and more complicate and are developping to veritable hieroglyphics. E. g. baptized men were represented by a stag drinking in a spring, by a vine or a mount, faithful christians by plants, sheep or birds, the four evangelists by four streams overflowing the universe. The attitude of the individuals, even their gesture had their meanings sacrified by tradition.

At last on a council in Constantinople in 692 was ordered to give up the allegory for Christ's crucifying and to pass to real representation. But this command was not followed at once, and the dying Christ instead of being represented like a man dying with pain, was painted like a youth, triumphant and covered with royal insignia.

Gradually the bishops formed rules according to which religious pictures were to be executed, which, it is true, in the occident were never strictly observed, by which, however that uniformity was created which is particular for painting up to the 10th century. The Greek monk Denis has composed them, some of which we recite here:

Adam's creation: Adam a youth, beardless, naked and standing. The Eternal Father before him surrounded by bright light. Round this trees and animals. Aloft the heaven with sun and moon.

Eva's creation: The paradise as above mentioned. Adam naked, sleeping, resting his head on his hand. Eva comes out of his side with lifted arm. Before her the Eternal Father in radiant light, holding her with his left hand and blessing her with his right.

Expulsion of Adam and Eva: The paradise as above mentioned. Adam and Eva naked, with a wreath of fig-leaves round their haunches. They are fleeing turning their heads back. An angel with six wings, holding a fiery sword in his hand pursues them.

The holy prophets: Moses, having grew hair and little beard. He says, the heavens should be fond of himself and all the angels should worship himself. Elijah: a youth, bald-headed, having a pointed beard. He says: "The Lord is living; He has given life to thy soul and He will not leave thee".

Joseph and Mary on their flight to Egypt: Mountains in the background. The Holy Virgin with her child sitting on an ass, looking backward. Joseph holding a stick in his hand and wearing a gown on his shoulder. A youth leads an ass charged with a basket; he looks at the Holy Virgin driving on horseback behind himself. In the fore ground a town, from the walls of which idols are falling off.

This is the reason that the painting from the time of the crusades is a merely symbolic one: a tree means a wood, a crooked line a cloud; a door represents a house or even a town. As glass-painting at this time not yet had the same importance as afterwards, mural painting hat taken a prominent position in church-decoration.

Together with the transformation of architecture beginning in the 13th century painting, too, enters a new phase, becoming more independent in the selection of its scenes and in the representation of them, making rapid progresses and withdrawing more and more from the old traditions. But after a short time painting loses room for moving, pushed back by glass-painting that had grown a picture; it is often forced to content with imitating the power of transparent painting by using tones on the opposite side.

But mural painting keeps in possession vaults and apses (semi-cycle niches), which are covered with angels or religious pictures, or walls in castles that are covered with grand scenes much approaching reality. Although Roman tradition that had called into life French painting, more and more gave way, yet the crusades had reanimated the taste for colour, and all the decoration showed that brilliant harmony which we have left off, since the connexion with the orient has more diminished. Painting, however, not only served for decoration, but it also was a possibility for instruction of people whose single book it was. Where as the owner of a castle intended to immortalize his warlike deeds or folk-lore, the bishop by pictures in churches tried to call the principles of christian faith back to his faithful's memory.

The ancient painters possessed a certain number of practical rules, by which even inferior artists were permitted to get the equilibrium existing in old works. In a precious book conserved in the National Library of Paris and composed by an architect of the 13th century, Villard de Honnecourt, we find mentioned those rules according to which the artists of this time constructed their compositions on geometrical compositions. It is probably interesting to insert here some figures taken from this modelling book for artists.

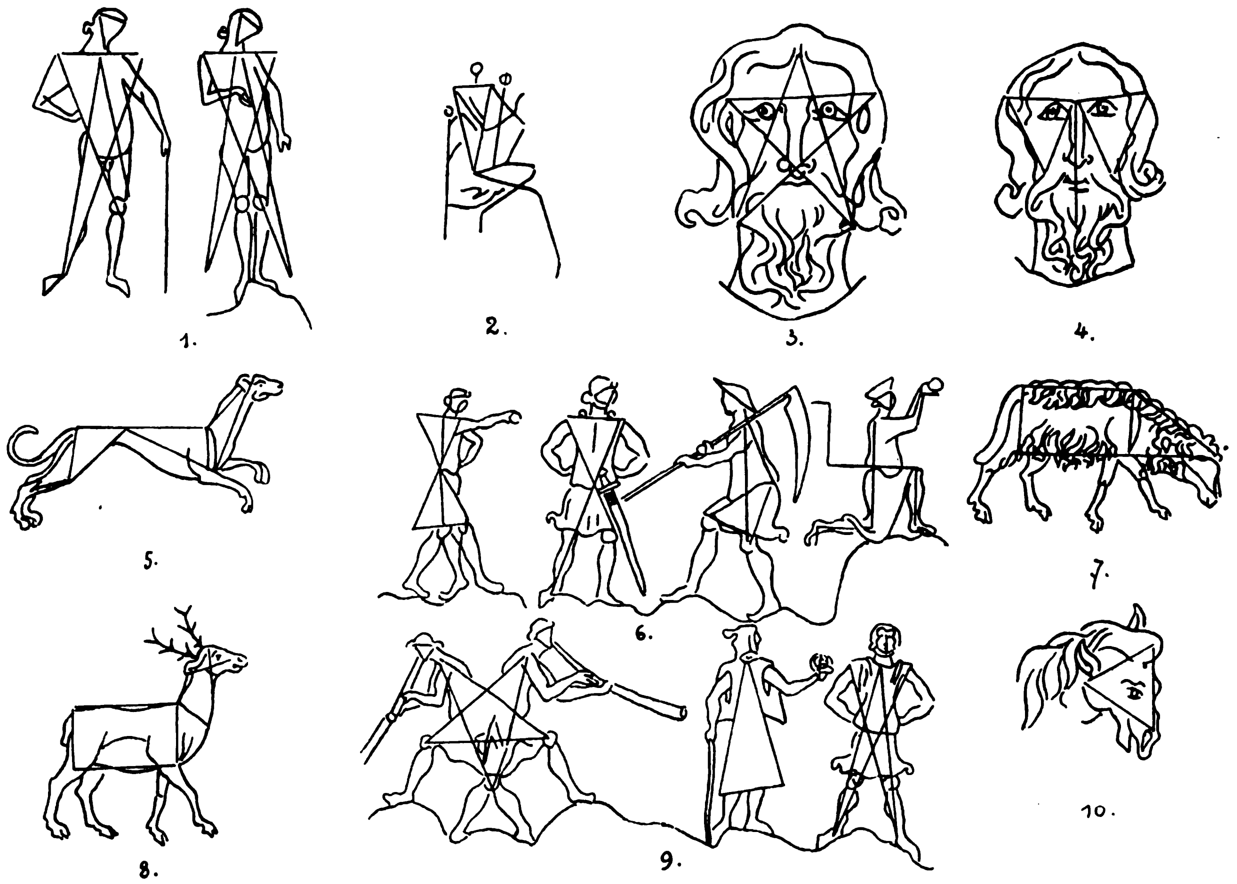

Fig. 1: Geometrical construction of a man and of a woman. — Fig. 2: Sketch of a king sitting with crossed feet. — Figs. 3 and 4: Examples of constructions according to the general proceedings being usual in the workshops during the 13th century. — Figs. 5, 7, 8 and 10: The same proceeding for animals. — Figs. 6 and 9: The same proceeding for groups.

As to technique, it is very varying and has remained equal for several centuries. Principally there was used painting in fresco, wax, distemper, and oil without siccative (drying oil).

Table 36: Romanesque Mural painting.

(Gélis Didot et Saffillée, La peinture décorative en France du XIe au XVIe siècle.)

Figs. 1 and 6: Painted soffit of an arc in the abbey of Cadonin (Dordogne), 13th century. — Figs. 2, 7 and 8: Pictures from Saint-Crépin's church, Evron (Mayenne), 13th century. — Figs. 3--5: Norman paintings from the chapter-hall of the Cathedral of Séez (Orne), 13th century. — Fig. 9: Cross of a rosette from the Church of Pritz near Laval (Mayenne), 13th century. — Fig. 10: Cross of a rosette from the abbey of Cadonin (Dordogne), 13th century. — Figs. 11 and 12: Capitals from the church of Chateloi (Allier), 12th century. — Fig. 13: Cross of a rosette from Saint Géneri's (Orne), 13th century. — Figs. 14 and 18: Soffits of apes from the Castle of Coucy (Aisne), 13th century. — Figs. 15, 16 and 17: Norman capitals from the church of Saint-Georges de Boscherville, 13th century. — Figs. 19, 21 and 23: Soffits from the church of Saint-Quiriau in Provins, 12th century. — Fig. 20: Soffit from the church of Saint-Ours in Loches (Indre et Loire), 13th century. — Fig. 22: Picture on a wooden door-panel in the Cathedral of Bayeux, 13th century. — Figs. 24 and 25: Friezes from the church of Saint-Michel d'Aiguilhe near Puy (Haute-Loire), 13th century.

Table 37: Gothic Mural paintings.

Fig. 1: Soffit of an arc in the church of Villeneuve-les-Avignons (Gard), 14th century (Gélis-Didot). — Figs. 2 and 10: Rosette and groin of a vault from the church of Cunault (Maine et Loire), 13th century (Gélis-Didot). — Fig. 3: Wooden coffer of a ceiling in the church of Baillon-sur-Loire,

14th century ⟨Gélis-Didot⟩. — Fig. 4: Painted sculptures from St. François-Xavier's Chapel of Notre Dame de Paris ⟨Peintures murales des chapelles de Notre Dame de Paris⟩. — Fig. 5: Picture from the Cathedral of Clermont ⟨Puy-de-Dôme⟩, ⟨Gélis-Didot⟩. — Fig. 6: Painted sculptures from St. Clothilde's Chapel in Notre Dame de Paris ⟨Peintures murales⟩. — Figs. 7 and 11: Painted sculptures in the cathedral of Rheims ⟨Gailhaband⟩. — Fig. 8: Soffit of a window in the church of St. Julien de Brionde ⟨Haute-Loire⟩, 14th century. — Fig. 9: Painted groin and rosette of a vault from the cathedral of Auxerre, 13th century.

Floor-mosaic.

Mosaic, in latin: opus musicum, musaicum ⟨i. e. work of the Muses⟩, opus tesselatum ⟨i. e. covering in quadrangular form⟩ is a work from little cubes made of marble, glass, terracotta, or small stones of various colour, fixed to a pile of cement. Taken from the Greeks and used by the Romans this art made rapid progresses with the latter on account of their sufficient means and their predilection for luxury. But mosaic soon getting out of fashion, lost its primitive character, i. e. that which the Greeks had won by their taste. Together with the conquest of Gaul by the Romans there mosaic-floors indispensable for people also were adopted; they even put removable mosaic-floors into their tents. Generally the old Roman mosaic-floors found in France have kept the simple and grand character of the primitive mosaics. But gradually the Romans found mosaics too precious for being trodden with the feet and used them instead of paintings on the walls. In order to rivalise with the painters, the artists making mosaics had constantly to invent new methods for representing the tints of the palette, which finally caused the decay of mosaic art at the same time as the Roman empire was ruined.

But church that has never-refused any art, was growing in spite of all pursuits and after having become wholly victorious accepted in mosaic art one of its principal arts and at last raised it to that height which it possessed for so long a time.

During iconoclasm many fleeing monks passed to Italy where they perfected mosaic art in such a degree that their models were authorative up to the 12th century. These monks despising the life here below and only working with regard to salvation executed works of a remarkable poetry. Exhibiting a mystic meaning and hardly a skilful manner of drawing yet their figures are superior to common forms and usual expression, although they may not even be entitled to beauty. Though after christianity being victorious, heathen temples were transformed according to the claims of christian service, yet floors mostly remained in their former condition. But soon the frontsides and the interior walls were covered with mosaics too. The older basilicas had floors made of concentric or touching circles, which work was called opus Alexandrinum ⟨Alexandrine work⟩. The floors executed in Gaul during the first christian epoch, were not at all works of native workmen, but they were mostly performed by Italians. However, since the 12th century in France mosaic was generally given up, especially after the extension of Gothic style which preferred floorings made of lacquered earthen plates or incrustated stone plates that were cheaper and notwithstanding produced a good effect. Besides, painting had made such progresses that it could boldly rivalise with these mosaic-floorings.

The use of incrustated stone plates we may follow up to the 12th century. Cell-enamel as well as mosaic have probably contributed a good deal to it. The drawings were deeply engraved into stone, which deepenings were filled with pitch, mixed with certain stained substances.

The artists during the middle ages by no means used cartoons for their works, but directly drew on the polished stone, for drawings frequently recurring when being looked at seem to be similar, but they do not cover one another, however for frequent recurrences powdering also was employed. The drawing was incised about two centimetres in depth with hammer and chisel, yet it had an unpolished surface for better joining the cement. These works were used much, principally for tombstones till the 15th century. The deepenings were often filled with lead, too, but in this case they below were larger than above in order to prevent a loosening of the lead. But when cement was employed, a rightangle or triangle transverse section was sufficient for reason of the great adherence of cement. Non only in France these floorings were used, but also in other countries. This probably was connected with the custom of inserting engraved tombplates into the flooring. Already in antiquity people knew to give terracotta a bright coat of enamel, principally in the orient, in the countries in the valley of Euphrates wanting in stones. This varnish consisted of an alkaline aluminium silicate combined with a staining metallic oxide, but the later plates for floorings are mostly covered with a varnish containing lead or tin, according to the epoch. The varnished flooring-plates used in France from the 11th till the 17th century have a transparent varnish stained light yellow, unless it was not stained with a metallic oxide. But the base for plates in the sort of faience is tin oxide being wholly opaque like that which is employed for Moorish and French plates from the 16th century. We therefore have to distinguish: Plates with a transparent varnish, that still shows burnt clay, plates with a surface without lustre, i. e. without any varnish, and plates of faience with an opaque coating. The two former ones were used from the 11th till the 17th century, whereas the latter ones came forth only in the 16th century in France, but were soon supplanted by marble-plates.

The earthen plates imported by the Romans in France were far superior to stone plates, for they were not so cooling and so subject to the heat caused by heating underground as those. The oldest varnished plate that was found in France dates from the Monastery of Sainte Colombe-les-Sens, from Richard the Impartial of Burgundy's tomb, who died in 936, containing an inscription. Thus the use of lead glazing dates back to the time of the Carolingians, so that it is a mistake to suppose crusaders to have brought enamelled plates with themselves from the first crusade to France.

In the middle ages earthen plates in a half-dry condition were put into iron frames but without the clay being treated in the same manner as nowadays, as the whole work was done only by hand. The plates often consisted of two parts; into the upper finer plate the ornament was pressed. The deepenings caused by it were filled out with a burnt clay mixed with staining metallic oxides like manganese, chrome, yellow ochre etc. Since the 12th century coloured coats for all the products made of burnt clay were also employed. The red colour was won by yellow ochre, the brown one by Terra Siena or umber, the yellow one by a white burnt clay, that afterwards is varnished, the black one by manganese, the green one by copper salts. The liquid mass was poured into the deepenings incised by pressing in the ornament. Bricks were simply dipped into the liquid.

For varnishing plates their surface was powdered with lead sulphide, after the plates had been dipped into loam-water mixed with the same quantity of fine sand as loam.

In the 12th century two systems of plates for floors were employed. The older one, plates containing mat or varnished reliefs, was supplanted by the later mosaic having a good effect of colours, vigour and harmony. The other system consists of plates each of which has its colour, often together with a smaller plate of another colour. Characteristic for the latter are black and black-green. Towards the end of the century incrustated plates come forth mostly containing geometrical ornaments. Then the whole is principally distributed on oblong through-squares separated from each other by stripes of a more subdued colour. In the 13th century a great progress in the whole ceramic art becomes important. There are only single plates with incrustations employed without consideration for the whole; the green colour disappears, whereas the brown and black ones are remaining. Although the difference of the plates of the 12th and 13th century be not great, it yet keeps pace with the improvements happening in architecture. It was the lilies that were used very much in this epoch; often, too, four or eight plates formed one ornament. On the whole we may state that since the 13th century ceramic plates came to ruin which we perceive in a still more striking manner in the 15th century.

Table 38: Plates for floorings.

⟨Amé, Les carrelages émaillés du moyen âge et de la renaissance.⟩ ⟨The enamelled pavements during the middle ages and the Renaissance.⟩

Fig. 1: From the Castle of Margaret of Burgundy in Tonnerre ⟨Yonne⟩, 13th century. — Fig. 2: From the gallery of Notre Dame de l'Épine ⟨Marne⟩, 15th century. — Figs. 3 and 4: From the chapel of the monastery of Bretenil ⟨Oise⟩, 14th century. — Fig. 5: From chancellor Rollin's old hotel in Dijon, 15th century. — Fig. 7: From the old hall of Touey ⟨Yonne⟩, 14th century. — Figs. 9, 13, 14, 16, 17: From the church of Ste. Colombe's monastery ⟨Yonne⟩, 12th century. — Figs. 10—12, 18—20: From the hall in the chapter of the cathedral of Cotanus ⟨Manche⟩, 13th century. — Fig. 15: Engraved stone plate from the Holy Virgin's altar in the church of St. Denis ⟨Seine⟩, 13th century. — Fig. 21: From the church of Nivoin ⟨Sauthe⟩, 13th century. — Fig. 22: From the museum of the city Auxerre ⟨Yonne⟩, 14th century. — Fig. 23: From St. Michel's chapel, in the former college of St. Quentin ⟨Aisne⟩, 12th century. — Fig. 24: From the church of Nimelles ⟨Yonne⟩, 14th century. — Fig. 25: From the lords' house of Sacy ⟨Yonne⟩, 14th century. — Fig. 26: From the old castle of the abbeys of Vezelay, Yonne⟩, 13th century. — From the old castle of Haulsy ⟨Marne⟩, 13th century.

Table 39: Enamelled works.

Fig. 1: Crosier from the 13th century ⟨Lacroix et Serré, Le moyen âge et la renaissance⟩. — Fig. 2: Cell-enamel from the 10th century ⟨Lacroix et Serré⟩. — Fig. 3: Crosier from the abbey of Foigny, found in the tomb of Barthelemy de Viv, founder of the cathedral of Laon in the beginning of the 13th century ⟨Cahier et Martin, Mélanges d'archéologie⟩. — Fig. 4: Reliquary in the church of Ambazac from the 12th century ⟨Lacroix et Serré⟩. — Fig. 5: Church-chandelier from the 12th century ⟨Lacroix et Serré⟩. — Fig. 6: Ciborium from Prince Soltykoff's collection in Paris from the 13th century ⟨Lacroix et Serré⟩. — Fig. 7: From a diadem from the 13th century ⟨Lacroix et Seré⟩. — Figs. 8 and 9: Statuette of the Holy Virgin made of gilded copper from Limoges, 12th century ⟨Lacroix et Serré⟩. — Fig. 10: Ciborium from the 12th century ⟨Lacroix et Serré⟩.

Table 40: Cell-enamel from the altar of Verdun.

⟨Drexler und Strommer, Der Verduner Altar.⟩

Fig. 1: A table of the altar of Verdun. — Figs. 2—5: Different borderings in it.

Table 41: Early Gothic glass-painting in France, XIIIth century.

Figs. 1 and 5: Trimmings from the cathedral of Le Mans ⟨Lacroix et Serré⟩. — Figs. 2, 4, 8, 9, 12 and 13: Trimmings from the cathedral of Chartres ⟨Cahier et Martin, Mélanges d'archéologie⟩. — Fig. 3: Grisaille from St. Thoma's cathedral in Bourges ⟨Lacroix et Serré⟩. — Figs. 6 and 10: Window of the cathedral of Bourges ⟨Lacroix et Seré⟩. — Figs. 11 and 14: Painting from the cathedral of Le Mans ⟨Lacroix et Seré⟩.

Table 42: Gothic glass-paintings.

Fig. 1: Window from the church of Saint Ouen, 16th century ⟨Lasteyrie, Histoire de la painture sur verre [History of glass painting]⟩. — Fig. 2: Window of a cathedral of Le Mans, representing money-changers, 13th century ⟨Lacroix et Seré, Le moyen âge et la renaissance⟩. — Fig. 3: Window from the cathedral of Amiens, representing a rope-maker's workshop, 13th century ⟨Lasteyrie⟩. — Fig. 4: Trimming from the cathedral of Chartres, 13th century ⟨Lasteyrie⟩. — Figs. 5 and 7: Trimmings from the cathedral of Troyes, 13th century ⟨Lasteyrie⟩. — Fig. 6: Glass made of grisaille from the cathedral of Chartres ⟨Lasteyrie⟩. — Fig. 8: Trimming from the Nouvelle-Alliance in Bourges, 13th century ⟨Lacroix⟩. — Fig. 9: From a glazed gallery of the cathedral of Châlons sur Marne. — Fig. 10: Window of Trinity-church of Vendôme ⟨Gailhaband, L'architecture du Ve au XVIIe siècle⟩. — Fig. 11: Window from the cathedral of Evreux, representing Guillaume de Harcourt, Grand Queux de France, 14th century ⟨Lasteyrie⟩. — Figs. 12 and 14: Window in the cathedral of Evreux, presented by Guillaume de Cautier for happy childbed, 15th century. — Fig. 13: Rosette from the cathedral of Sens, representing the celestial concert ⟨Lasteyrie⟩. — Fig. 15: Escutcheon of Renaud de Chartres, archbishop of Reims and chancellor of France, in the cathedral of Tours, 15th century ⟨Lasteyrie⟩.

Calligraphy during the middle ages.

In the antiquity bark of papyrus was used for writing, even many documents of the kings of France are written on this material. No sooner than in the 8th century the use of parchment was propagated and in the 13th that of paper made of rags, by which the employment of papyrus gradually came out of fashion. People wrote either with a smooth cane coming from Egypt or with a pencil filled with inks of various colours, but already in the 8th century goose-quills were employed. In the time of Charlemagne people often wrote with gold or silver on purple parchment. Together with christianism Roman manner of writing came to Germany where it was executed especially in monasteries.

The word "calligraphy" comes from the Greek "kalos", i. e. beautiful and "grapho" i. e. I write; but at an early date a kind of shorthand already seems to have been usual. The chief workshop for copying books were the monasteries. Parchment being very expensive, the text was compressed as much as possible and written without a break. By this initials came forth for marking a new line. The oldest of them were black, simple and without decoration; gradually the use of red and blue ink, of gold and silver came into fashion, and successively veritable works of art were produced. Little pictures, too, relating to the contents were drawn in, by which even the foundation for our schools for painters was laid.

Table 43: Gothic Illuminating.

(Guillot, Ornamentation des manuscripts au moyen âge.)

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Table 44: Initials and miniature painting.

(Westwood, Fac-similes of the miniatures.)

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Table 46: Painted sculptures.

(Stothard, The monumental effigies of Great Britain.)

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Table 47: Miniature painting.

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The Gothic monument in Italy.

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⟨Gruner, Specimens of Ornamental Art.⟩

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Table 49: Glass-mosaics from the 13th century.

⟨Salazaro, Monumenti della Italia meridionale.⟩

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Table 50: Mural paintings from the 14th centuty.

⟨Gruner, Specimens of Ornamental Art.⟩

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Table 53: Miniature painting.

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Terracotta.

As to the abundance of building stones in Greece it is quite comprehensible that the Greeks little used burnt clay for their buildings, in fact only for main mouldings. More frequently the old Romans employed burnt clay, very much, however, the Italians did so. Thus the front of the palace of Farnese made of bricks excites our admiration still to-day. But in the Lombardic plain, where stones are very scarce, bare brickwork of course was employed in a large extent, in Pavia in the forms of the middle ages, yet in Milan more in the forms of cinquecento-style. In France we find this material for building principally in Toulouse and in the valley of the Rhone. In Germany bare brickwork especially was adopted in the North German low plain being poor in stones, probably introduced there by Italian monks from the Lombardy. The church of Lenno on the Lake Como is one of the oldest examples of terracotta architecture, exhibiting remainders of colossal statues made of terracotta. The flowering time of terracotta architecture chiefly is that during the Renaissance, in which very nice terracotta ornaments were produced at a price within everyone's means, which promoted much the good taste of people. But they made spare of these ornaments and used them only where it was necessary by style. The summit of this industry had been attained in the time of Luca della Robbia, whereupon it gradually declined, especially under the reign of grotesque style.

Table 54: Italian terracotta buildings.

(Gruner, The Terracotta architecture of North Italy.)

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Olditalian silk weaving.

Although Italy had no share in weaving pictures during the middle ages, yet she has performed quite astonishing things in silkweaving. No doubt Northitalian silkweaving is a daughter of that which follows Byzantine-Saracenic style being flowering in South Italy and Sicily under the reign of Normans and Hohenstaufen. Only since the middle of the 13th century drapery made in Genoa, Venice and Lucca is mentioned, but the development of occidental style begins no sooner than in the 14th century. Till the 15th century Lucca was directing in this art, and its products were far superior in renown to that of silk drapery coming from Venice, Florence, Milan, Bologna and Genoa, but perhaps less in quality. Italy during the middle ages up to Renaissance supplied the whole occident with brocade, velvet and silk. But the oldest Italian silk drapery was a real imitation of the oriental stuff, often bearing even Arabian inscriptions, and only by development of Gothic art the Italian designers of patterns obtained a certain independence. Oriental silkweaving on account of the conquest of Persia by the Mongolians had accepted many Chinese elements that were received by the Italians who did so the more easily the more a distinct naturalism was included in Chinese art like in early Gothic. But Gothic art at last gave the force of forming the style and of transforming the Saracenic patterns into Italian ones in the course of the 14th century.

What first of all distinguishes the silk designs of this epoch from the ancient ones following Byzantine=oriental style, that is besides their naturalism chiefly a loosening of the fixed division of the surface and the transition to a free arrangement often making nearly the impression of a landscape. No later epoch of art has such an abundance of motives as that combination of oriental phancy with early Gothic has created. The Italian drawer has made the Saracenic palmette a tree, the arabesque the occidental forms of a vinebranch, of an oak and of a rose, just as they exist in early Gothic German glass=painting and carpet weaving, too.

Table 55: Olditalian silk drapery from the 14th century.

⟨Lessing, Gewebe des Kgl. Kunstgewerbemuseums Berlin [Textures in the Royal Industrial Museum in Berlin].⟩

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The Gothic ornament in Germany.

Table 56: Mural painting and ceiling-pieces.

⟨Borrmann, Aufnahmen mittelalterlicher Wand- und Deckenmalereien in Deutschland.⟩

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Table 57: Miniature painting (Illuminating).

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Table 58: Miniature painting.

⟨Westwood, Fac-similes of the miniatures,⟩

Figs. 1—9: Initials from Gutenberg's Bible.

Table 59: Glass-painting.

⟨H. Kolb, Glass-paintings during the middle ages and the Renaissance.⟩

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Medieval woven carpets.

During the Romanesque epoch of style weaving of tapestry was a merely monasterial art that during the Gothic epoch changed to a worldly industry and more passed to Northern France, Flanders and Brabant. Already about 1340 there existed a corporation of the „Tapitewawers" ⟨carpet-weavers⟩ in Brussels, probably on account of the fabulous luxury being displayed on the French and Burgundian court. Germany cannot rivalise with these large workshops in Arras, Tournai, Valencienne, Lille, Douai, for her productions were not made for reason of grand orders of luxurious princes, consequently her tapestry is much more unpretending than the French one. In the whole, only narrow coverings for backs of stalls, antependies ⟨clothes⟩ for altars and furniture were produced. The flower of this art happens in the first half of the 15th century, but soon it degayed, probably on account of the competition of the Flemish workshops. From the South German language of the majority of the inscriptions results that this industry was chiefly extended in South Germany. From the homogeneousness of the costumes and of the scrolls as well as from the frequent repetition of the designs we may conclude a common origin of German woven carpets. But different places for carrying on this industry are proved and fixed in South Germany, e. g. Nuremberg, Basle, Mayence etc.

Table 60: Medieval carpets.

⟨Borrmann, Wandteppiche und Decken des deutschen Mittelalters.⟩

Figs. 1 and 5: Fragments of the carpet in Quedlinburg from the 13th century. During the 16th century it was spread on the floor before the high altar and even seems to have been made for this purpose, in favour of which its technics ⟨Knitted wool⟩ and its unusual form are arguing too. The represented carpet — so far it is conserved — consisted of five stripes containing pictures ⟨see Borrmann, text, page 7⟩, showing the elementary forces, planets etc. coupled in a symbolical meaning, then the symbolism of Mercurius and Philology usual in this time, finally the direct homoge at the Pope's feet. — Fig. 2: Carpet in the Cathedral of Halberstadt from the end of the 12th century. In its centre it shows Charlemagne sitting, surrounded by the four philosophers, which is probably indicating the foundation of this bishopric by Charlemagne. — Fig. 3: Trimmings of the carpet representing Tristan in the monastery of Wienhausen near Celle from the 14th century. — Fig. 4: Part from a covering embroidered with animals in a heraldic composition ⟨now in the Industrial Museum, Berlin⟩, from the 14th century.

THE
COLOURED ORNAMENT
OF ALL HISTORICAL STYLES
BY ALEXANDER SPELTZ

PART III: MODERN TIMES

THE
COLOURED ORNAMENT
OF ALL HISTORICAL STYLES

WITH COLOURED PLATES FROM OWN
PAINTINGS IN WATER COLOURS BY
ALEXANDER SPELTZ, ARCHITECT

THREE PARTS CONTAINING SIXTY
COLOURED PLATES EACH WITH TEXT

THIRD PART
MODERN TIMES

SIXTY PLATES IN THREE-COLOUR, FOUR-COLOUR,
FIVE-COLOUR AND SIX-COLOUR PRINTING WITH
A FRONTISPIECE AND ILLUSTRATED TEXT

K. F. KOEHLERS ANTIQUARIUM / LEIPZIG

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RENAISSANCE.

EVERY pronounced style creates ideas from which, without counting all purely artistic things, there may be concluded the culture of the epoque in question and the train of thoughts of the nations referred to. All the more in a considerable degree Renaissance does so, representing a turning-point not only in history of art, but also in the general history of humanity. This importance of Renaissance first of all lies in the delivery of the individual person by the expansion of humanism. The expression „Renaissance“ or „regeneration“ indicates the characteristic revival of antique forms, an epoch of Italian art setting in at first in Italy at the beginning of the 15th century, which art has accepted the antique forms as a base, but whithout receiving them in a thoughtless way. On the contrary Italian Renaissance is a creative and original manifestation of the artistic genius of that nation.

During the middle ages the whole intellectual life was lead by clergy into forms being pleasant to it, and every result of science and disquisition that was not to be brought into accord with the rigid dogma of Catholic church was suppressed in the most cruel manner. It is natural that on account of these abuses the general indignation was more and more encreasing. On one hand the independent meaning in clerical and theological things caused by the decrease of clerical authority, on the other hand the interest for antiquity awaking again in Italy produced an enormous revolution in mankind. The longing for the releasing death and for a brighter and better world after it — which longing was, demanded by clergy for reason of human unworthiness and sinfulness — was displaced by affirmation and appreciation of earthly existence, by the pleasure of the individual in his works, by which that immense plenty of facts was produced which we call Renaissance. The scientific side of this movement is called humanism.

The individualism of Italian Renaissance indirectly exhibits in applied art first of all in the fact that modern study of nature and of man enters it and gives it its benefit by means of decoration and ornamentation. This process was accomplished so quickly and vigorously, because from the very beginning in the art of Italian Renaissance decorative purposes and intentions acted an important part, and because a great number of leading artists were working for applied art. Likewise obtaining good copies was considerably facilitated by generalisation of copperplate-engraving, afterwards by art of printing. Works of the greatest artists are to be considered works of applied art.

This direct combination of applied art and decoration with great art gives Italian Renaissance something of loftiness and of pretension according to the strengthened feeling life. Itis this very connexion of applied art with manner of life, conduct in life, and conception of life of that time that gave the productions of this art their original vigour of existence. We may conclude from this; that any imitation of this style being only an exterior one cannot help but appear rather critical when made upon other suppositions and other conditions of culture. With increasing consciousness of artists of course the highest augmentation possible of artistic interests and claims of the public had to keep pace. Besides there existed very often personal relations between purchaser and performer even in mechanical works.

The difference between Italian and Northern-Gothic art for artists lies first of all in shaping; but here we find contrasts of artistic manner of feeling having so incisive an importance that naturally quite a different conception, an utterly opposed intercourse with world and things exists. But any opinion given on fasting or feeling forms in Italian Renaissance is not to be thought without a judgment of the relationship of this art with antique art. Chiefly we have to consider that any æsthetic fundamental disposition corresponding with taste for ort of the antique nations of the Mediterranean in their classic epoque is inherent in Italian Renaissance. Here as well as there exists the interest for plastic form such at it is rising from the plenty of sights. From this interest for plastic-corporeal stable appearance of the objects first of all the bordering surfaces determining the bodily appearance accept an importance in direct contrast with the tendency of Gothic art for dissolving surfaces. Thus the tectonics of Italian Renaissance especially is based on the effect of surfaces and outlines being to fix as distinctly and conceivably as possible the form of the object. We therefore here find a geometrical simplicity of the ground-plan. Another consequence of plastic fundamental feeling and of its tendency for sure statics which the tectonics of Italian Renaissance possesses too, is symmetry.

If we do not search the essential of a style in this or that ornamental detail, but in a certain constitution of artistic feeling, we shall find without ado that Italian Renaissance was no imitation of antique art at all, but an original manifestation of a kindred artistic meaning, although being influenced by it. Further there is to be stated that any aspiring to some absolutely new thing did not exist in the striving of that epoque like now and that accepting and working out former forms did not mean anything degenerating at all. Besides, things during Renaissance are separated from those of antiquity so far that there could not be question of copy as every object had to be adapted to the new situation.

Many motives, you know, without ado had been taken from the old monumental decoration; some of them had even remained as an inheritance during the whole middle ages; others had been imported again in the 12th century, for Gothic art had never penetrated as much into flesh and blood of the Italians as into that of people who lived in northern countries. Further even in this case Italian Renaissance manifests its creating power on account of its striving for naturalism not only in the living performance and treatment of it, but also in the fanciful invention and combination of motives for decoration. The sum of artistic strength which the Italian nation produced is to be recognised from the variety in the single schools, from the energy and the development leading from Early-Renaissance to grotesque style. In the first Florentine Early-Renaissance there is effecting the complete receding of ornamentation and decoration in favour of the expression of corporeal plastic resting form such as it exhibits in the „rustica“-style of Florentine architecture. In the former Florentine works, principally in furniture, the artistic tendency lies in the working out the cubic original shape to a form being as comprehensible and simple as possible, so that here every ornament was considered as something troublesome and superfluous. Consequently ornamentation had to mean to produce a vigorous profiling for increasing the effect of the outlines and of the surfaces. The effect of the latter is marked by a division according to the principle of casing and frame.

Since the middle of the 15th century a more and more rising tendency for decorating and joyfulness in ornamentation took up much room, manifesting a striving for the graceful, often surprising by its polish of details, of elegance, and of artistic tact, often being playful and schematic. In this flowering time especially the symmetrical arrangement and concentration round an axis is manifesting, likewise keeping the independence of the surface on which the ornament appears as an independent member. Into this joyfulness in ornamentation during Early-Renaissance the 16th century brings a sweeping reaction by the tendencies of High-Renaissance, by making coarse on account of neglecting details and on account of the predilection for overloading for reason of aspiring to imposing effect. At the same time under Michelangelo's influence there the moved form is developping instead of the resting one, the intricacy of the small surfaces and of the simple silhouettes; all expression is laid into the motion of the whole front, and together with the receding of the proper decoration there grows up a taste for ranging above and below, which finally leads to a conscious effect in grotesque style.

For the Italian applied art the proper home is Florence, the cradle of the new art which from here at different epochs and in various manner according to the course of the general artistic development was transferred to the other schools. In Toscana already in 1450, first of all in Siena, the new art was general, whereas it was spread in Upper Italy, in the Lombardy, in Umbria, in Rome in the second half of the century; but in Venice even about 1500 Gothic forms still have been usual. Although the transition be rather sudden in some schools, yet others are still maintaining for a long time single Gothic forms, likewise the Gothic total feeling.

In Germany the expansion of humanism represented by Johann Reuchlin, Erasmus von Rotterdam, Ulrich von Hutten etc. was promoted much, especially by art of printing that was invented at this time, without which art Reformation, too, probably might not have been performed. The proper bearers of the general rising, however, were chiefly the towns, the brightest period of which is the first half of the 16th century, although in spite of all their far-sighted structures they were not destined to great political successes. Only the Hanseatic League held out well for some time as the ruler of the north. But here on account of the general welfare and the busy activity of handicraft of course a favourable ground for art and applied art existed, which fact in some regards probably may be attributed to the severe management of the guilds. In contrast with the towns at this time the princes were in a bad financial position, until they at last succeeded in emancipating themselves from the purse of the towns by introducing an austere central power.

Late-Gothic art by no means was a decadent one, but it would have been able to develop on consequently the received forms. The special taste for forms was not all at something particular to the middle ages, but it was founded in the German character generally. It results that there was no necessity to leave Late-Gothic art for reason of the Renaissance received from the Italians, which always was and necessarily was quite foreign to the German. That is the natural way of the world that youth despises customary things, for youth is willing to seek independently the path to some new thing. These contrasts were most ardently entertained among German artists about the year 1500. The voyages of many of them to Italy awaked enthusiasm for „wälsche und antikische Manier“ (Romance or Italian and antique manner), that finally became a platform and fashion, — and the latter always is the strongest mean of attraction.

In Gothic art all is based on the tendency for life and motion; from the interior function of the forms that are imagined relating to space, all lines in soft rising are developped from or to the perpendicular line. Every plain is perceived as dead; each horizontal line, the taste for equilibrium of the masses, for homogeneous concentration round an axis does not exist. The insufficient treatment of the human shape in Gothic art be no means is the result of incapacity, but the consequence of the general ideas of the middle ages and the ignorance of the rules of the perspective, as it was the case with the figures of Egyptian art too. The space was only indicated, any space cutting with effect of depth being correct in optical regard was not aspired, for the German felt in a threedimensional manner, but the Italian did so in a figurative and superficial one, in which way he discovered the rules of the perspective.

The Gothic ornament always is thought moving and corporeal; it is not fixed in its ground, but it is growing out of it in an organic manner like a branch from its trunk.

In Italian architecture the German artist recognised its severe arrangement round an axis, the symmetry of its masses, the harmony between its power and burden, the large use of smooth walls, the predominating horizontal lines. In its representation of men and animals he was astonished at the admirable domineering over the forms of the body and at the unaffected manner of position, and he did not rest until he had discovered the mystery of the perspective. Seeing the ornament he was necessarily engaged by the inexhaustible riches of putti, heroes, sirens, grotesque things, medallions, garlands, acanthus-leaves, by the elements taken from architecture, such as pillars, pilasters, capitals, entablature, friezes, Roman arches, house-tops, balusters etc. The profane side of art, too, came to the front, i. e. portraits, landscapes, scenes taken from mythology, allegorical figures, whilst purely ecclesiastic art was more receding. We must suppose the German artists travelling in Italy to have been the most important factors for propagating the new art in Germany, then the illustrated books and drawing-copies. But if we consider that the conditions of life, character and talents of both these nations are differring widely, it is clear then from the first that German Renaissance is no failure of a copy of the Italian one (just as little as Italian Renaissance is an imitation of antique art), but it is an independent product, full of peculiarity and of character.

The period of the great masters and art is the first half of the 16th century, the second one is the epoch of applied art having not such persons full of character. The oldest Renaissance-work in Germany is a silver altar made by master Georg Seld in Augsburg, dated 1492, now standing in the „Reiche Kapelle“ in Munich. A short time after, Albrecht Duerer begins to take up ornaments of Renaissance that already in 1510 with him are prevailing in contrast with the Gothic ones, but he always here and there comes back to

Gothic art having penetrated his flesh and blood. Especially his designs of goldsmith's work, however, are manifesting Renaissance in its ideal perfection. In Duerer's pupils we perceive that they have grown up in Renaissance art and that they endeavour to efface last Gothic reminiscences. Soon drawing-copies made in copperplate-printing came forth destined to serve for guides to mechanics, which however made them more and more dependent by working out only mechanical things, but nothing that they had felt themselves. The older artists, it is true, properly spoken, were painters making designs for applied art, like Beham, Penz, Aldegrever, Flötner, Hopfer, but artists at a later period like Virgil Solis, Jost Amman, Paul Flindt, and Wendel Dietterlin were chiefly occupied with inventing works for applied art, and the more production was increasing, the more the artist drawing only for applied art became typical.

In art as well as in applied art there was an amazing division of working, so that a larger work only seldom was executed by a single person. Early-Renaissance in logical succession developped till 1540.

On account of the small size of their works a number of ornament-engravers usually is called „Kleinmeister" (small craftsmen), like Hans Sebald, Bertel, Beham, Georg Penz, Heinrich Aldegrever, Hans Brosamer, Jacob Bück etc., whose principal activity dates from 1520 till 1540. That artist who probably has exerted the greatest influence on the development of Early-Renaissance is Peter Flötner who died in Nuremberg in 1546.

In the second half of the century all drawings seem to have been sketched out without trouble; their perspective and symmetry are right, their figures are moving without stiffness, the ornament being more and more increasing. With this at the same time the confidence in own power and in own ability had returned. Nevertheless the travels to Italy did not cease; even the Dutch influence having advanced to South Germany represented by Theodor de Bry in Frankfort-on-the-Main and Peter Candid in Munich took its way by Italy. From here there came afterwards the reaction against piling ornaments carried to excess, which reaction tried to use larger ornaments instead of a punctilious chaos of ornaments. The effect of the ornament was aspired no more by its elegance, but by its force. Untill the end of the 17th century Nuremberg kept its renown to lodge the first masters in all domains. In some things of art Augsburg rivalised with it. But gradually the artists moved to the residences where princ esloving art gave lorge orders. Thus Duke Albrecht Vth of Bavaria laid the foundation to the active life of art existing in Munich to-day, especially by Hans Mielich and Peter Candid, likewise the electors Christian Ist and IInd in Dresden, and emperor Rudolph in Prague did so. At the same time as princes, clergy, too, began again to support art.

It is quite a different turn that things took in France where a strong central power existed. Here Renaissance prevailed by being promoted by high life. It was prepared here by the works of Benvenuto Cellini and Andrea del Sarto. Afterwards, in 1530, Francis Ist summoned Rosso and Primstinio, who being working principally in Fontainebleau, founded a special school. Girolamo della Robbia, too, worked for Francis Ist and died in 1566 in Paris. Under the influence of Catharine de Medici French artists were sent to Italy for their instruction, which was more suitable to the national haughtiness of the Frenchmen, f. i. Jacques Androuet-Ducesseau, Philippe de l'Orme, Pierre Lescot, Jean Goujon, and Germain Pilou. Here just like in Germany Renaissance at its beginning was confined to ornamentation and only afterwards changed tectonics. But whilst in Germany monumental tasks were missing and therefore Renaissance had to develop on the drawing-board and in small art, in France it got a grand scale by building castles to be executed. The Low Countries being in close connexion with Germany in the 15th century had a rich flowering-time of art and culture, which, however, was followed by a certain fatigue, but about the middle of this century by a new revival again. The most important artists here were Lucas van Leyden, Johannes Vredeman de Vries, and Hans Collaert; Theodor de Bry and Peter Candid had gone to Germany. In England people received Renaissance only with much reluctance, so that Hans Holbein's works could not enter English national taste. In Denmark, art always was under German influence. Renaissance only from 1577 till 1648 was decidedly favoured by Christian IVth, when Rosenborg and Frederiksborg were built.

The Italian Ornament.

Plate 1: Façade-Painting.

Figure 1 and 2: Parts of the façade in the court of Casa Taverno Milan. ‹Gruber, Specimens of Ornamental Art.› — Fig. 3: From the façade Via San Matteo in Genoa. ‹Reinhardt, Genoa.›

Plate 2: Wall-decorations.

Fig. 1: Vestibule in Palazzo Imperiale standing on Piazza Competto, Genoa. ‹Reinhardt, Genoa.› — Fig. 2: Frieze from Palazzo Vitelli alla Connoniera in Citta di Castello, dating from the 16th century. ‹Ewald, Farbige Dekorationen.› — Fig. 3: Mural picture from Cardinal Bibiena's bathroom in the Vatican, painted by Raffael d'Urbino. ‹Gruber, Specimens of Ornamental Art.› — Fig. 4: Wall-decoration from Palazzo del Toscana in Mantua, painted by G. Romano, about 1530. ‹Gruber.› — Fig. 5: Wall-decoration of Stonza d'Orfeo in the same palace, painted by the same artist.

Plate 3: Decorations of pillars and soffits.

(*Letarouilly, Le vatican et la basilique de Saint Pierre à Rome.*)

Fig. 1, 2, 4—9: Decorations of pillars in the second floor of Raffael's loggias ‹boxes› in the Vatican. 1512—1516. — Fig. 3: Decoration of a window-soffit in the Torso-Cabinet of the Museum Clementino, Rome, 1785.

Plate 4: Decorations of vaults.

Fig. 1: Decorations of a vault in Uffizi Gallery, Florence, from the 16th century. ⟨Ewald, Farbige Dekorationen.⟩ — Fig. 2: Decoration of a vault in the loggias of Raffael in the Vatican, Rome. 1616. ⟨Letarouilly, Le vatican et la sainte basilique de Rome.⟩ — Fig. 3: From the loggia in Palazzo Andrea Doria in Genoa. ⟨Reinhardt, Genua.⟩ — Fig. 4 and 5: Decorations of vaults in the second floor of Raffael's loggias in the Vatican. 1516. ⟨Letarouilly.⟩

Plate 5: Decorations of ceilings.

Fig. 1 and 3: Ceilings from Palazzo Vecchio in Mantua from the 16th century. ⟨Gruber, Specimens of Ornamental Art.⟩ — Fig. 2: Ceiling from Palazzo Ducale, Urbino. ⟨Ewald, Farbige Dekorationen.⟩ — Fig. 4: Ceiling painted by G. Romano in Palazzo del Toscana, Mantua. ⟨Gruber.⟩ — Fig. 5: Ceiling from Salla delle Storie, now Library, in Apartement Borgia. 1498.

Plate 6: Painted stucco.

Fig. 1: Wall-decoration in Palace Andrea Doria, Genoa. ⟨Reinhardt, Genua.⟩ — Fig. 2 and 3: Frames round doors from the Ducal Palace, Urbino. ⟨Arnold, Der Herzogliche Palast von Urbino.⟩

Ceramic Art of Italian Renaissance.

After the Italian city Faenza had become generally famous for its polyform ceramics, all ceramic products being coated with a painted tin-enamel were called »fayence«. But ceramic things, too, were covered with a transparent lead-enamel, often coloured by alloys of metallic salts, whereby however their clay before mostly is still coated with a thin, finer, white mass of clay called »engobe« (i. e. a certain mass poured against ceramic things). This covering was decorated by coloured painting or relief-like. On reliefs only the decorations were laid on the finer mass which then was called »Schlickerauftrag«, i. e. oozy coat, or the drawing was scratched out of the coat and then was called »Sgraffito«. On tin-enamel it is painted and then burnt, whereby colour and enamel are melting together, which is called »Scharffeuermalerei«, i. e. painting in a keen fire. But as colours when being painted on fresh enamel are absorbed by this at once, there was used another enamel which, though absorbing colours not so fast, yet produced no gloss. For this reason things besides often were covered with a transparent lead-enamel called coperta by which a fine polish was produced. But painting on non-burnt enamel just in the 15th century came forth by which European ceramics now was able to exist as an independent product beside the oriental one.

Marvellous to relate, Italian fayance is called »majolica« according to the Hispano-Moresques often imported in Italy from the Isle of Majorca. Gothic ornaments put on many things admit to suppose majolica-manufacture to have existed already in the 12th and 13th century, which industry, however, seems to have been confined in producing plates and disks for being hung up on the façades of churches, like in Bologna, Pisa etc. Besides, these products were nothing but half-fayence or mezzo-majolica made in the manner of sgraffito. It is proved that in 1409 in Citta di Castello master Agostino di Francesco and another one, La Fratta, were making them. But mezzo-majolica-industry did not develop to an art, as it is manifested by fragments of it dating from this time which are frequently found; in the 17th century the family Cuzio in Pavia endeavoured to reanimate it according to old models.

The beginning for the development of veritable majolica in the first half of the 15th century was made by the family Della Robbia in Florence, whose products are pure fayence. If Della Robbia executed so voluminous works in pure fayence, we are obliged to suppose ceramic studios to have surely existed at this time in Toscana as well as this is proved by finds made especially in Florence, Castelfiorentino, in Siena, too, the decoration of which consists of thick, bluish black or violet enamel on a white ground. From the characteristic mixture of Gothic and Arabian elements we may conclude that this industry was influenced by Spanish-Moresque articles of export trade. But representations of such Italian works on German and Dutch pictures manifest that Italian majolica-industry already about the middle of the 15th century was developped so much that its products could be exported to foreign countries.

In any case the oldest centre is Faenza where the oldest majolica vessel that is certainly manifested, dating from the years 1393—1405 is conserved; beside it Siena. But in the oldest works — not counting single motives — Renaissance-style is not yet to be found; there still are prevailing Gothic and oriental motives without proper shading in vigorous blue, to which violet, green, yellow, and brown are joining. These works chiefly consisted of jugs urns, disks, but first of all of chemist's pots, called alborelli. Not before the time towards the end of the 15th century the flowering time in the domain of Renaissance-ornament begins, especially in Faenza, Caffaggiolo, Siena, and Castel Durante the products of which excel in quality and in drawing carefully made, in colouring, in clear forms and in conscious arrangement of figural and ornamental composition. But from 1530 owing to the precedence of the workshops of Urbino figural painting begins to get the superiority over ornamentation in such a degree that utensils may be taken for nothing but for a ground for painting, until after the middle of the 16th century in Urbino a reaction happened in favour of purely ornamental painting of grotesques in connexion with an overproduction. To the older centres there had still joined Deruta, Gubbio, and Venice.

All the utensils made of majolica that are kept till now, formerly served for luxury-pottery, which was arranged on the table only at festivals, such as dishes, plates, pans, chemist's pots (alborelli), vases, jugs, inkstands, salt-cellars, cash-boxes, candeliers; painted shields, too, are conserved that partly had a religous use. Their composition partly is original, but mostly designed according to engravings, especially by the Venician engravers Marco Antonio, Agostino Venetiano, Marco Dente, likewise according to German engravings. Plastic works are seldom to be met with on the whole.

Characteristic for works coming from Faenza is the grounding of their blue drawing with light yellow and green, with violet and yellowish brown. Very known are the works having Berettino-enamel coming from the workshop Casa Pirotà, 1520—36, having a light-blue enamel for ground that was used for shading, when lights were put on; likewise the works with camaieulike i. e. one-coloured painting with blue on blue and white on white. During the flowering-time of this workshop the figurative recedes into the background; remarkable are the dishes with naturalistically imitated fruit, serving for table-decoration, the oldest example of which dates from 1520. Flagstones, too, ware made in a large extension. By master Baldassare Monara in 1534 figure-painting in the manner of that one in Urbino became fashionable.

The highest artistic importance exhibit the works of the workshop of Caffaggiolo situated between Florence and Faenza that was entertained by the family of Medici; the oldest of them dates from the year 1507. But this workshop, too, after having applied to the purest Florentine style in its ornamentation lost its independent importance on account of Urbino painting that invaded. Its ornamentation being similar to that one of Faenza exhibits exact grotesques and tendrils on blue, yellow, or white ground with knotted bindings that were imported into decoration by Leonardo da Vinci.

In riches and elegance of grotesque ornaments in the purest Renaissance-style the flag-stones of Siena are excelling, where the principal workshop was Maëstro Benedetto's. For Early-Renaissance there is especially important Castel Durante, nowadays called Urbania, about which reports go back to the 14th century, principally for reason of its works with grotesques and trophy-ornamentation, and since 1525 chiefly of its grisaille (grey in grey)-painting. Here especially master Zonon Maria and master Sebastiano del Merforio were active. From this centre came master Nicolo Pellipario, after his removal to Urbino called Nicolo da Urbino, who was the ancestor of the family Fontana afterwards being working there. The most important work dating from this workshop is the service of Gonzaga made for Isabella d'Este. After Nicolo's removal to Urbino in 1528 figure-painting in Durante looses its characteristic feature and is pursuing now the paths of Urbino. The majolica-manufacture in Venice seems to have had closer connexions with Faenza, but the characteristic ornamentation of Venetian majolica is to be explained only by oriental influences as well in style as in technics, e. g. by its grey or bluish enamel, called Smaltina, which laid on in a thick coat gives a stained effect to the colours burnt in, likewise by its oriental flower-tendrils with fine stalks which were painted on porcelain in blue colour with white lustre on grey ground, but since 1525 replaced by Renaissance-ornaments.

A branch-workshop of Venice seems to have been Padua, where especially works with gold ornaments or lac-work on black ground being usual in Venice were made. In 1540 by master Domenigo de Venezia Urbino painting was imported in Venice.

In the same way as Faenza majolica-manufacture those of Padua, Ravenna, Imola, and Cesena were working. One of the most characteristic small workshops was that of Forli.

Both the manufactures of Deruta and Gubbio imitating Spanish models at the end of the 15th century succeeded in attaining the lustre being peculiar to them, probably by Cesare Borgia, archbishop of Valencia moving to Umbria. Although Durante in many regards had an independent character, yet the activity of masters from Faenza is to be proved, e. g. that of Maturanzio and Lazzaro di Battista da Faenza. The characteristic side of this school is its peculiar lustre. Its best product are the heavy pompous dishes with figurative painting, the border of which is divided into compartments with scale-figure and leaves or tendrils being mutual; then the half-length portraits of ladies and cavaliers with flying scrolls; figures of saints, especially of St. Franciscus. But this manufacture lost its importance after 1560. One of its peculiarities is its confining the tin-enamel on the front-side, whereas the back-side has lead-enamel.

This manufacture was surpassed, especially in making ruby lustre, by that of Gubbio which remained a secret of this town, although the former majolicas manifest the closest relationship with Deruta. But this centre never taking an independent route always proved accessible to foreign influences. Lustring being a proceeding of »censoring« many majolicas were sent there for being lustred, so that the mark of Gubbio by no means proves making such objects there. As inventor of ruby lustre Georgio Andreoli is considered who mostly calls himself master Giorgio da Ugubio and was working in Gubbio since 1498; his successor is Maestro Cencio, i. e. his son Vicenzo Andreoli; besides, several works dating from Gubbio till 1557 exhibit a master Maestro Prestino's signature.

The High-Renaissance of majolica and afterwards of grotesque art succeeding it developped in Urbino, where already in 1500 the existence of ceramic workshops is to be proved, which took the leading part in Italian majolica-manufacture and involved a total revolution in it displacing ornaments by the human figure. Ornament disappears and with it tectonic structure, so that figurative representation is stretching over the whole surface of the vessel. As a model now principally serve the engravings according to Raffael's pictures, but without faithfully imitating this painter's total composition. From the former works these are differring by brownish black outlines instead of the blue ones, by prevailing of orange colour, and richer and more fluent modelling. The flowering-time of figure-painting in Urbino concurs with the immigration of Maëstro Nicolo Pelipario da Urbino from Castel Durante towards 1528. This good master had no own workshop, but was working in his son's Guido Fontana Durantino who had moved to Urbino already formerly and founded there the house Fontana. With the above mentioned master there is to be put on a par Francesco Xanto Avelli from Rovigo who was working there between 1525 till 1542. By the endeavours of Duke Guidobaldo II$^{\text{nd}}$, 1538—1574, who summoned artists like Battista Franco and Raffaello da Colle to Urbino, the management in Urbino took more and more greater dimensions, so that individualites receded into the back-ground. The most famous workshops for works of art were those of the families Fontana and Patanazzi which even worked for Charles V$^{\text{th}}$ and Philip II$^{\text{nd}}$.

By carrying the figurative to excess at last there took place a reaction helping ornamentation to get its rights again by introducing a graceful and elegant system of decoration according to Raffael's grotesques consisting of phantastic, architectonic, figurative, and vegetable motives on pure white ground if possible. This system was fitted to be adapted to the structure of each vessel, which structure was shaped more moved and free. The potter was to be displaced by the sculptor. Instead of the round plates, oval and curved round trefoil dishes were made, on jugs spout and snake-shaped handles were freely developped, on the whole, more plastical utensils like salt-cellors, inkstands, candeliers etc. were produced, genre-figures too. This proceeding dating from the sixties was kept till the end of the century. It is possible that landscape-painting instead of figures was received from Venice. As good figure-painters especially Raffaele Ciarla, too, Raffael's kinsman, and Guido da Merlingo are to be mentioned.

The best artists was Guido Durantino whose productions were much inquired after abroad in spite of theis incorrect drawing; he covered the whole vessel with drawings without calculating the deformation which was without fail effected by the form of the vessels. Further we mention Francesco Xanto Avelli da Rovaga who in spite of hasty performing the design on some pieces was never short in style nor in correctness of drawing.

It is true, he impasts the colours a little hard in large surfaces, shading fleshy parts in lustre; besides, generally the tone of his painting is light with black contrasts and brillant lustres in leaves and garments.

Orazio Fontana, however, modelled fleshy parts in blue and was inspired in his compositions especially by Giovanni d'Udine and Passini del Vaga. It is clear that on account of the brisk activity in Urbino workshops that afterwards developped like those in Pesaro and Rimini, could not withdraw from the influence of Urbino. The best works of Pesaro went forth from the workshops of the family Laufrance. Besides there still existed workshops in Rome, Viterbo, Pisa, Verona, and Turin.

As in Italian majolica-production we find ornaments which may not deny East Asiatic influence, as people endeavoured, too, to make the Chinese white mass of porcelain, and under the reign of the grand-duke Francesco Maria of Toscana, 1574—1587, they succeeded in producing a mass similar to porcelain called Medici-porcelain, having a blue painting on white ground.

Plate 7: Majolica flagstones.

Fig. 1—3: Majolica flagstones from Siena and Amalfi, from the 15th century. ⟨Meurer, Italienische Majolikafließen.⟩ — Fig. 4: Collection of flagstones from two Genoa palaces in Nilo San Matteo and Via Luccoli. ⟨Herdtle, Eine Sammlung italienischer Majolikafließen.⟩

Plate 8: Italian majolica.

Fig. 1 and 3: Vinegar-bottles. ⟨Delange und Bornemann, Recueil des Fayences Italiennes.⟩ — Fig. 2: Vase bosketshaped from Urbino from the middle of the 16th century. In one of its cartouches Apollo pursuing Daphne, Diana in the skies. ⟨Collection Spitzer.⟩ — Fig. 4: Small vase from Urbino. 1540. ⟨Collection Spitzer.⟩ — Fig. 6: Salt-cellar from the atelier Patanazzi, Urbino. 1560. ⟨Collection Spitzer.⟩ — Fig. 7: Vase made by Marc Antonio Patanazzi, Urbino. 1580. ⟨Collection Spitzer.⟩ — Fig. 8: Salt-cellar from Urbino. 1550. ⟨Collection Spitzer.⟩

Plate 9: Italian majolica.

Fig. 1: Plate from Deruta. 1530. ⟨Collection Spitzer.⟩ — Fig. 2: Plate from the atelier Pirota in Faenza. 1520. ⟨Collection Spitzer.⟩ — Fig. 4: Plate from Caffaggioli. ⟨Collection Spitzer.⟩ — Fig. 5: Dish from Caffaggioli from the end of the 15th century. ⟨Collection Spitzer.⟩ — Fig. 6: Majolica-plate lustred made by Georgio Andreoli in Gobbio, now in Kunstgewerbemuseum, Berlin. — Fig. 7: Dish from Caffaggioli from the end of the 15th century. ⟨Collection Spitzer.⟩ — Fig. 8: Plate from Faenza from the beginning of the 16th century. ⟨Collection Spitzer.⟩ — Fig. 9: Dish in three parts made by Orazio Fontana from the 16th century. Its centre represents an antique sacrifice. ⟨Collection Spitzer.⟩ — Fig. 10: Plate from Caffaggioli. ⟨Collection Spitzer.⟩

Plate 10: Venetian glass-works.

Fig. 1: Jug from the 16th century in South-Kensington-Museum. ⟨Nesbitt, A descriptive catalogue of the Glass vessels in the South-Kensington-Museum.⟩ — Fig. 2 and 5: Glass-bowls from the 15th century. ⟨Collection Spitzer.⟩ — Fig. 3, 4 and 6: Glass-bottles from the 15th century. ⟨Collection Spitzer.⟩ — Fig. 7, 8, and 11: Wineglasses from the 15th century. ⟨Collection Spitzer.⟩ — Fig. 9 and 10: Enamelled glass-cups, in Kunstgewerbemuseum, Berlin. ⟨Lehnert, Illustrierte Geschichte des Kunstgewerbes.⟩

Renaissance ornaments in Italy.

Whereas people in Germany and in France imitated blindfold all the extravagances of fashion in Burgundy, people in Italy remained true to their innate taste for artistic work, besides, there the transformation of art in antique meaning had already taken place long ago. Jeweller's work was not done by specialists, but it formed a part of goldsmith's work, called »oreficeria« according to French orfèvrerie. No artist is known that would had produced nothing but trinkets. At that time any artist usually was painter, sculptor, architect, engraver, copper-plate-engraver, goldsmith, enchaser together. The oldest of these artists is Lorenzo Ghiberti, 1381—1455, famous by his large bronze- and goldsmith's works. Both his sons, Tommaso and Vittorio, did goldsmith's work. Further we mention two artists coming from goldsmith's workshops, Giovanni Turini from Siena, born in 1384, Michelozzo Michelozzi, who became afterwards a famous sculptor and architect, and Andrea Verocetio, afterwards being sculptor on the pontifical court and teacher of Pietro Perugino and of Leonardo da Vinci. The first that had a jeweller's shop moreover, was Antonio des Pollajuolo, 1426—1498, famous as a painter, too, who besides perfectionned the transparent enamel on relief-ground. Many others had perfected themselves in goldsmith's workshops or beside other arts managed goldsmith's art like Brunellesco, a renowned architect, Tommaso Finiguerra, who worked especially in Niello, Domenico Ghirlandajo, Francesco Francia. Nothing but goldsmiths were Ambrogio Foppa called Caradosso from Milan, Michelagnolo di Viviano, Piero Brothers, Giovanni and Romolo del Tovaloccio, Girolams del Prato called Cellini from the Lombardy. The greatest goldsmith of Renaissance is Benvenuto Cellini, 1500—1570, who at one time worked in Italy, at another time in France, whereby he attributed very much to propagating Renaissance in France. This artist in his »trattati« (essays) left a good introduction to goldsmith's art, translated into German by Justus Brinkmann.

In this art in Italy most place is occupied by appendages still existing in a great number and mostly considered as Cellini's works. Their central motiv usually is a pearl or cameo mostly surrounded by a phantastic system of enamelled volutes or figures. In the technics of goldsmith's works first of all the different kinds of enamel are prevailing, especially deep-cutting-enamel, Upper-Italian painter's enamel, and melting-relief (émail de ronde bosse) covering figures or plastic ornaments with coloured melting. This latter, however, appears not before the second half of the 16th century; »miello«, too, in Early-Renaissance was often used. On account of the awaking antiquarian and artistic interest for old gems and cameos in Renaissance-time lapidary cut was rising, especially set going by Petrara and Lorenzo Magnifico; the first master of this art seems to have been Vittore Pisano, and its principal centres were Florence, Milan, and Rome.

Plate II: Trinkets from the 16th century.

(*Collection Spitzer.*)

Fig. 1: Key. — Fig. 2, 16 and 19: Appendage. — Fig. 3: Appendage in glass-grounding. — Fig. 4: Appendage with cameo, representing Leda with the swan. — Fig. 5: Hanging-cross made

of crystal and jaspis. — Fig. 6: Medallion with engraved Minor's head on sardonyx. — Fig. 7: Small dish consisting of enamelled copper representing the odoration of the three Magi. — Fig. 8: Cameo. — Fig. 9, 12, 13, and 18: Outer case of a watch. — Fig. 10: Appendage with the Annunciation. — Fig. 11: Appendage. — Fig. 14, 15, and 20: Medallions. — Fig. 17: Appendage with portrait made of wax painted over.

Plate 12: Tarsia (inlaid work) from the 15th century.

Fig. 1 and 7: From stalls in Santa Maria Novella's church in Florence. ⟨Meurer, Italienische Flachornamente.⟩ — Fig. 2: From a stall in Santa Maria's in Organo in Verona. ⟨Gruber, Specimens of Ornamental Art.⟩ — Fig. 3 and 5: From a stall in Santa Maria's in Organo, Verona. ⟨Meurer.⟩ — Fig. 4: From a stall in Certosa near Pavia. ⟨Meurer.⟩ — Fig. 6: From a stall in San Marco in Venice. ⟨Meurer.⟩

Plate 13: Glass-painting.

Fig. 1: Window from the second floor in Raffael's loggias. 1534. ⟨Letarouilly, Le vatican et la basilique de Saint Pierre de Rome.⟩ — Fig. 2: Window in Laurentian Library, Florence. 1568. ⟨Schaefer and Roßteuscher, Monumentale Glasmalereien des Mittelalters und der Renaissance.⟩ — Fig. 3: Glass-painting of Early-Renaissance, Kunstgewerbemuseum, Berlin. ⟨Kolb, Glasmalereien des Mittelalters und der Renaissance.⟩

Plate 14: Marble-mosaics and marble-tarsia.

Fig. 1, 2, 6, 7, and 8: Marble-tarsia from Padua. ⟨Weißbachsche Sammlung in der Kunstgewerbebibliothek, Dresden.⟩ — Fig. 3: Marble-tarsia from Certosa near Pavia. ⟨Weißbachsche Sammlung.⟩ — Fig. 4: Marble-tarsia from San Domenico, Messina. ⟨Weißbachsche Sammlung.⟩ — Fig. 5: Marble-tarsia in Museum Pio Clementino, Rome. ⟨Letarouilly.⟩

Italian Book-ornamentation.

As in the whole art of Renaissance as Italy took the guidance in adornment of books, although the technic of printing came from Germany to Italy and the founding of types for printing at its beginning was exclusively executed by Germans who had immigrated. Until the end of the 15th century, it is true, for theological and juridical works black letters (Gothic characters) were authoritative, but »Lactantius« accomplished already in 1465 was printed in beautiful Livora-characters. The transition from one to the other manner of printing were the Semi-Gothic characters which were also used in Germany. But from the beginning all the ornaments in Italy exhibit the pur classic spirit. Like in Germany at first in printing all the passages destined for the ornaments were left open for being painted by hand, which method however was soon relinguished on account of its expensiveness. By this people of course came to the idea of multiplying by printing not only the text but also its ornaments, and in the seventies of the 15th century they bigan to adorn books with those splendid initials, ornamental ledges, and vignettes far up to the 16th century, excelling especially in their figures of children, acanthus-, leaves- and flower-ornaments, their architecture too, which, however, are wanting in the bright and comfortable tone of the German book-ornaments on account of maintaining too strictly the artistic form. Only the figures of children, those putti of the Italians, have not been attained by the Germans. The flowering-time of this art was the end of Early- and the beginning of High-Renaissance, 1477—1518. After this period the great masters of wood-cuts probably could find no successors of equal rank and in spite of the constant improvement of technics they seem to have gradually retired from wood-cut. On account of profuseness the effect wholly gets lost until people perceiving this returned to the former economy in employing ornaments.

It is difficult to prove if wood-cut was used at first in Germany or in Italy, but it is sure that in Italy the technics of wood- and metal-engraving soon surpassed the German one; besides, the first printer in Venice, Erhart Ratdolt, already printed his ornaments with clichés (stereotype-plates). As well as in Germany drawers and form-cutters here were different persons, though we may suppose one or another printer to have been form-cutter at the same time.

The first known printer in Italy that printed his books with classic ornaments was a German, Erhart Ratdolt, that had immigrated and after having acquired a fortune in Venice in 1486 returned to his native town Augsburg and there still managed a printing-office for thirty years. Probably it is to be supposed that for his not being a draftsman he got the initials, ledges, and vignettes which he had found in Italian manuscripts, cut into wood. His first creation was Johann Kœnigsberger's Calendarium in 1476, the outfitting of which is not inferior to modern productions. For many years Ratdolt's system had no successor who practised it, which, I suppose, is partly to be attributed to the intrigues of writers and illuminists who by spreading book-ornamentation naturally lost their condition of existence. Only one printer in Polliano, Innocens Ziletus, in 1476 edited a work of Petrarca's, The Life of Famous Men, in which there were trimmings of wood-cuts with open passages for drawing in the portrait. Not before the end of the eighties Ottavio Scoto from Monza in Venice took up this art again, succeeded by Gregor de Gregoriis whose productions belong to the finest ones. One of the best printers was Aldus Pius Manutius working since 1494 who even served the foreign printers as a model, though most of his works published be illuminated by hand. One of the most important printing offices in Venice was Peter Lichtenstein's who produced excellent works in initial-adornment and who even overstocked South-Germany with his works. But afterwards the ornaments of his initials degenerated so that beneath them he once more printed the letter which the initial had to represent. Besides there were still working with a good success in Venice: Johann Tacuino Cereto of Trient, Gregorius de Rusconibus, Lucas Antonio Guinta etc.

Outside Venice there lived a famous printer Ottavio Petrucci in Fossomprone, the first that introduced printing of music with movable types, but unfortunately left a small number of works.

In Milan where art of printing had become adopted at the same time as in Venice in 1477, it was Ulrich Scinzengeler having immigrated from Ingolstadt that together with Leonhard Pachel there had established the first printing office. In Brescia from 1481—1491 Boninus de Bononis was working whose illustrated edition of Dante's works is one of the most beautiful productions of printing art. Besides the printer Angelus Brittanicus in Brescia is worth to be mentioned.

Only few ornamented works were produced in Rome, illuminating by hand being preferred here. The first that at the beginning of the 16th century published illustrated works was Eucharius Silber, succeeded by Jacobus Mazochius and Minutio Calvo. Besides there are to be mentioned: Cinthio Achillini in Bologna, Paulo Porro in Genoa, Hieronymus Soncinus in Ortona.

Plate 15: Venetian book-ornamentation.

(L'arte della Stampa nel renascimento Italiano-Venezia.)
(Art of printing during Italian-Venetian Renaissance.)

Fig. 1, 25, and 26: From Alessandro Paganini, Apocalypsis Jehsu Christi, in Marcus-Library. 1515. — Fig. 2: From Lucas de Burgo, Sancti Sepulchri (The Holy Monuments), Summa de Arithmetica (The Whole of Arithmetic). Paganino de Paganinis da Brescia in Libreria L. S. Olschky. 1494. — Fig. 3—6, 19—21: From »Statuta in Leges municipales Reipublicae Vincentinae« Simon Bevilaqua in Marcus-Library. 1499. — Fig. 7 and 24: From Herodoti Halicarnassi Historiarum libri IX, Johannes et Gregorius de Gregorii fratres, in Marcus-Library. 1494. — Fig. 8: From Missale Romanum. Petrus Cremonensis dictus Veronensis in Library of Museo Civico. 1485. — Fig. 9: From Biblia Malermi. Simon Bevilaqua in Library L. S. Olschky. 1498. — Fig. 10, 11, and 30: From Appioni Alexandrini Romanorum Historiarum, libri IV. Bernhard Pictor, Erh. Ratdolt in Marcus-Library. 1477. — Fig. 12—15: From Johannis Tortelli, Commentarii de Orthographia dictionum a Graecis tractarum. Andr. Catharinensis in Library of Museo Civico. 1488. — Fig. 16: From Petri de Abano, Conciliator differentiarum philosophorum. Gabriel de Tarvisio in Marcus-Library. 1476. — Fig. 17 and 18: From Octavianus de Petrucci Fossompronientis, De recta pasuratis celebratione, in Marcus-Library. 1513. — Fig. 22 and 23: From Zacharias Colliergi, Etymologicum magnum sumptibus nec blasti Cretensis in Marcus-Library. 1497. — Fig. 27: From Melchior, Sessa et Petrus de Ravanis Socii Plutarchi Vitae, Guarino Veronensi interprete, in Library of Museo Civico. 1516. — Fig. 28: From Julii Firmici de Nativitatibus, Aldus Manutius in Library of Museo Civico. 1499. — Fig. 29: From Bartolomes Miniatore, Formulario de epistole volgari. Bernardino de Novara in Marcus-Library. 1487. — Fig. 31: Lucianus, De veris narrationibus. Simon Bevilaqua Papiensis in Marcus-Library. 1494.

Plate 16: Manuscript-illuminating.

Fig. 1, 3, and 4: From Italian prayer-books. (Collection Spitzer.) — Fig. 2, 6, and 7: From Italian manuscripts. (Wyatt, The art of illuminating as practised in Europe from the earliest times.) — Fig. 4: Initial copied from Professor Borchard, Stuttgart.

Plate 17: Italian velvet- and silk-figures.

Fig. 1, 3, and 8: Upper-Italian silk weft. ⟨Fischbach, Gewebe.⟩ — Fig. 2: Italian silk. ⟨Dupont-Auberville, L'ornement des tissus.⟩ — Fig. 4, 5 and 9: Venetian velvet- and brocade-weft. ⟨Fischbach.⟩ — Fig. 6 and 7: Genoese velvet. ⟨Fischbach.⟩

The French Ornament.

Plate 18: Carpet-painting.

(Le Nail, Château de Blois.)

Fig. 1—6 and 8—11: Mural painting according to carpet-figures in the Castle of Blois. — Fig. 7: Wall-decoration in the Chapel of the Castle of Blois.

Plate 19: Wall-pictures.

Fig. 1 and 3: Wall-decoration from the Cabinet de Sully in the library of the arsenal in Paris, from Louis XIIIth's time. ⟨Daly, Motifs historiques.⟩ — Fig. 2: Chimney in Hotel d'Alnie, Blois, from Louis XIIth's time. ⟨Daly.⟩ — Fig. 4: Decoration in Louis XIIIth's room of birth, Fontainebleau. ⟨Ewald, Farbige Dekorationen.⟩

Plate 20: Painted wood-ceilings.

(Daly, Motifs historiques.)

Fig. 1 and 2: Timbered ceilings from the Castle of Videville ⟨Seine et Oise⟩ from Louis XIIIth's time. — Fig. 3: Box-ceiling from the room of the assizes, Dijon, from Francis Ist's time. — Fig. 4: Box-ceiling in the Castle of Auet from Henry IInd's time. — Fig. 5: Decorated beams fixed beneath in the Castle of Videville from Louis XIIIth's time.

Plate 21: Painted doors.

Fig. 1 and 8: Painted wood panels from Louis XIIIth's time in the Museum of Decorative Arts, Paris. ⟨Ewald, Farbige Dekorationen.⟩ — Fig. 2, 3, 5, and 6: Open panels on doors of the Chapel of Castel d'Auet ⟨Description du chateau d'Auet⟩. — Fig. 4: Panel in Gallery Diana of Castel d'Auet ⟨Chateau d'Auet⟩. — Fig. 7: Panel in Castel d'Auet ⟨Chateau d'Auet⟩.

Stoneware from Oiron or Saint-Porchaire.

From this fayence there have remained but a small number of pieces having a delicate design, a remarkable mass under an ivory tint, a harmonic drawing — that seems to have been more inspired by goldsmith's art than by architecture —, but there is too little known of it so that we have to regret that this art has scarcely existed for half a year. According to M. Fillou these fayences have been made between 1529 and 1568 by the potter François Carpentier under the artistic control of Helene de Hangest and her husband Artus Gouffier in the castle of Oiron near Thonars, assisted by her librarian Jean Bernard. The finest pieces made under Helene Hangest's personal management exhibiting pur forms and a harmonic tint date from the period from 1528 till 1537; those of the second period till 1563, in which year her son Claude Gouffier retired from this manufacture, manifest a more complicate form, but no effective improvement; they often have in a little cartouche the letter H and the three interlaced half-moons of Diana of Poitiers. This most promising art died out with them.

These admirable pieces being very rare have often been imitated, but without success. On the whole, all still existing pieces date from the dinner-service of Henry IInd and Diana of Poitiers; therefore they are also called fayence Henry IInd, although at Francis Ist's times already such ones existed. On this fayence colour in favour of the form recedes into the back ground, being mostly a pale yellow coat with relieflike ornaments of a different colour, in the manner of »miello« by which this gets quite an own originality full of fancy such as to be recognised at the first view. The discovering of this fayence dates from 1839 attributed at first to Florentine artists by André Pattier, until Eugène Piot and others proved French originality in it with regard as well to form and to ornamentation as to their architectonic composition and escutcheons put to it. Even small pieces have yielded 100 000 francs in public sales of works of art.

Plate 22: Stoneware from Oiron or so-called Henry IInd.
(*Delange, Recueil des fayences françaises dites de Henry II. et de Diane de Poitiers.*)
Fig. 1: Dish from the Duke of Hamilton's collection, England. — Fig. 2: Dish from Mr. H. Delange's collection. — Fig. 3: Jug from Mr. Hope's collection, London. — Fig. 4: Drinking-jug from Mr. Andrew Fountaine's collection in Norford Hall, England. — Fig. 5: Candelier from Baron Anthony of Rothschild's collection, London. — Fig. 6: Inside of a dish from Mr. Baron Anthony of Rothschild's collection. — Fig. 7: Salt-cellar from Count of Passau's collection in Airvault.

Fayence during Renaissance-time in France.

After ceramic art had declined in Italy, many Italian artists emigrated to France where they gave a new impulse to this art; thus the Florentine potter Girolamo della Robbia since 1538 worked in Castle Madrid near Paris that Francis Ist had caused to be built by Philippe Delorme. Other Italian potters afterwards founded ceramic workshops in Lyon, Nantes, and Nîmes, another one was established about 1600 in Nevers by a certain Domaine de Courade from Savona, which workshops, however, had no continuance. In 1542 at first works of the French artist Masseot Abaquesne in Rouen appeared, who, it is true, worked under Italian influence. Purely French were Bernard Palissy's products, who born in 1510 in Agen, Biron, or La Chapelle-Biron by unknown parents in his youth had become an apprentice with a glazier and glass-painter, but he drew and modelled in his spare hours, studied geometry too and finally became a land-surveyor. During his travels in France, Flanders, and Germany he received the germs of his ceramic works that he began in 1542 for favourite pursuit after having established and married in Saintes. Being not a potter of trade, only after several years, after many disillusionments and interruptions he had some success for gaining his livelihood. But in 1562, when the pursuits of the protestants began, as a Calvinist he was thrown into prison, but set free by his patron the Connetable of Montmorency, and then under the king's protection moved to La Rochelle. In 1565 called to Paris by the king he worked for Mary of Medici and delivered lectures on history of nature and physics. By his enemies' instigation he was set into the Bastille where he died in 1590. The characteristic individuality expressed in his works probably is owing to the fact that he was no potter by trade and therefore made all things following his own ideas without any connexion with professional art, in technics contrived by himself consisting especially in transparent lead-enamels coloured in the mass. His chief colours are manganese yellow, smalt, mountain-green, and yellow. He did not practise proper painting, but he knew well how to profit by the artistic effects of his enamels by putting in relief-figures. The glazings flew together in the depths without running into one another, so that on projecting places only quite a thin glazing was left, which was already considered in modelling. On glazed surfaces he produced wonderful marble-effects by glazings having run together. In Saintes he used as ornaments for plates, dishes etc. especially natural things in a strictly naturalistic line of thought such as fish, cragfish, snakes, butterflies, lizards, frogs etc. For this purpose he fixed these animals on the borders of the dishes and made a hollow mould from the whole into which he pressed the mass of the clay. In the same manner he produced grottos of gardens, especially in Paris where he devoted himself to figurative and ornamental art too. His glazings have their best effect on ornamental plates with smooth flat depressions between bindings and tendrils in which the colours were flowing together.

Pallisy's school still remained for some time after his death.

Plate 23: Fayences made by Pallissy.

Fig. 1 and 3: Triangle salt-cellars. ⟨Collection Spitzer.⟩ — Fig. 2: Vinegar-bottle. ⟨Collection Spitzer.⟩ — Fig. 4: Dish representing Bachus' childhood. ⟨Lacroix et Serré, Le moyen âge et la renaissance.⟩ — Fig. 5: Jug. ⟨Collection Spitzer.⟩ — Fig. 6 and 8: Dish for a vinegar-bottle. ⟨Collection Spitzer.⟩ — Fig. 7: Dish. ⟨Lacroix et Serré.⟩ — Fig. 9 and 11: Plate. ⟨Collection Spitzer.⟩ — Fig. 10: Large oval plate.

Plate 24: Enamelled floor-stones.

Fig. 1: From the chapel of the castle of Blois. ⟨Le Nail, Château de Blois.⟩ — Fig. 2 and 7: From the queen's room in Francis Ist's wing of the castle of Blois. ⟨Le Nail, Château de Blois.⟩ — Fig. 3: From the castle of Polisy, Aube. ⟨Amé, Les carrelages émaillés du moyen âge et de la renaissance.⟩ — Fig. 4 and 8: From the farm of Franqueville, Calvados. 17th century. ⟨Amé.⟩ —

Fig. 5: From the state-room in the castle of Blois. ⟨Le Nail.⟩ — Fig. 6: From the gallery of Sens in the castle d'Ancy-le-Franc, Yonne. ⟨Amé.⟩ — Fig. 9: From the King's room in Francis Ist's wing in the castle of Blois. ⟨Le Nail.⟩

Enamel from Limoges.

In Limoges being already famous in the middle ages for its pit-enamel, in the 15th century quite a peculiar art developped (having perhaps either a certain relation to glass-painting or being probably imported from Cologne) that is in no way connected with Byzantine pit- or cell-enamel, called Opus de Limogia. Enamel is known to be a boric silicate with an alkaline basis, which by admixture of certain metallic oxides, is capable to get different brilliant colours each according to the kind of the metal in question or to the degrees of its oxidation. For producing glass of borax, ashes of algae that were calcined were melted together several times with firestone finely ground or with rock-crystal. The more acid was used, the thicker the fusion becomes; the more ashes or base, the more easily fusible. By adding some salt of lead there is got a fusion fitting for each colouring to which the acetate metal-oxides mostly got by calcination are joined. It seems that the production of coloured glass-fusions has been managed already in antiquity in special workshops. The single cobalt sesquioxide that people then had, was the sapphire which was worked up to nicely blue smalt. Likewise copper in form of sulphate, acetate or carbonate often was worked up to enamel-colour, ferric oxide too, called Crocus Martis, which produces a yellowish green to dark green colouring of glass-fusion. Manganese, antimony, and silver were used too. But purple of Cassius was known only in the 17th century, it was made of calcined copper and iron-filings. White was got by lead and tin-salts.

The best ground for enamel is gold, but for its high price copper is mostly employed, especially on larger pieces. In contrast with the older producing enamel, this is put on a smooth surface of copper without fillets and pits. Thus metal here acts the same part as the ground on paintings, canvas, plaster etc., but then the principal difficulty does not lie in the artistic composition and performance like in paintings, but in the technical dexterity; consequently the representations of this art mostly are copies of German, French, and Italian engravings. Therefore the high esteem of these works is more founded in the artificialness of the technical production; but we do not deny that single pieces excel in exact drawing of large scale and harmonic colouring.

The first period till 1530 comprises Nardon Penicaud's and Jean Penicaud's works, who engraved the outlines into copper and then covered the whole with a pile of transparent melting. The lines shining through were traced over with a dark colour of melting, and between them the many transparent and opaque chief colours were brought in, whereupon the finer modelling was executed in gold and white by lustre put on.

Nardon Penicaud was born between 1470 and 1480 and is still called as a house-owner in 1539. His pupil probably was Jean Penicaud, in contrast with others of the same name called Jean I^st^ Penicaud, who is said to have still lived in 1553. Both have left enamel of splendid colours, which, however, make the impression as if the technical difficulties were not completely got over. The proper flowering-time of this art happened in a later period, after masters knew how to simplify coating and the number of the bakings of the vessels, which, however, was done to the cost of the riches of the colours; but this proceeding finally lead to grisaille-painting. In this period copper-plates were covered with a dark ground of enamel and this ground with a grey one on which there was painted with white after in the shady parts the black ground had been laid bare. Flesh-tints and gold were marked separately. To this period also belong Jean II^th^ and Jean III^rd^ Penicaud, Pierre Penicaud, too, of whom however only few biographical facts are known.

The greatest master of the second period as well as of the whole art is Leonhard Limousin, who was born in 1505 and died in 1577, whose works beside complete mastery of colour and style of painting are the most precious as to their artificial value, especially his portraits of princes and peers. Henry II^nd^ in 1548 appointed him court-painter, in which capacity he executed especially two large altar-tables for Sainte Chapelle in Paris following the drawings of the painter Niccolo dell' Abbate, Fontainebleau. The most copious of all Limousin painters is Pierre Reymond whose earliest work dates from 1534, whose latest from 1578, but he is still mentioned in documents in 1582. As to the immense quantity of the works owing to him, in foreign countries, too, we may suppose that not all works were executed by him personally, but that he had a workshop, probably with pupils. He is succeeded by Pierre Courteys, who is to be proved from 1545 to 1568 and from whom the largest compositions have been made, e. g. 12 tables of 1,65 m height and of 1 m breadth, and 4 metal plates composed with a great dexterity. As well as Reymond he prefers grisaille-painting. Besides there are still worth mentioning the masters Jean Court, called Vigier, and Jean de Court; the monogram T. C. is also frequently to be met with.

Generally the well pulverized and washed enamel being in the state of paste with a spattle of iron or brass is laid on the metal plate which is cleared well of oxides. Then this plate lying on a plate of fire-clay is brought into the glowing muffle. After some minutes the process of melting is finished.

Upon this pile there is put another one that is rubbed off with pumice-stone and then melted to a polished state. Now the artist's work begins who at first traces with a needle that which is to be paused over a paper rubbed with cinnabar. Now the subsoils of the foil which are destined to impose upon the splendour of the ruby, of the sapphire, of the emerald, of the topaz, or of the amethyst according to the outlines to be paused are cut out on a board with a sharp penknife and put on their place; then they are covered with the same enamel-colour, which is fastened by smelting in the muffle.

The greatest difficulty, however, is producing a beautiful white. For this purpose the white enamel carefully ground in the form of a paste is put with a pencil in drops on the plate, filled up with the needle and smelted on, which operation often is to be repeated three times, for the success of the work depends on it, and neglecting it even caused the decay of Limousine art of enamelling; besides its abounding colouring. The last operation is laying on light gold lines. That in which enamel works of the 16th century are excelling is a skilful and discreet use of white, whether for grisaille or for modelling garments under the transparent coloured enamels, whereas already in the 17th century a general decline of this art, until at last it died out entirely.

Plate 25: Enamel of Limoges.

Fig. 1: Enamel-picture, signed Shif. ‹Collection Spitzer.› — Fig. 2: Dish made by Pierre Reymond in Limoges, dating from the second half of the 16th century. ‹Lehnert, Geschichte des Kunstgewerbes.› — Fig. 3: Plate made by Jean de Court, dit ‹i. e. called› Vigier. ‹Collection Spitzer.› — Fig. 4 and 6: Vessels made by Jean Courteys. ‹Collection Spitzer.› — Fig. 5: Cash-box made by Penicaud. ‹Collection Spitzer.›

Plate 26: Glass-painting.

(*Lasteyrie, Histoire de la peinture sur verre.*)

Fig. 1 and 3: The Marshal of Montigny and his wife Gabriele de Crevant in the Cathedral of Bourges. 1619. — Fig. 2: The Saint Family, painted by Jean Lequier in the same cathedral dating from the 16th century. — Fig. 4: Francis of Bourbon, Duke of Montpensier, in the chapel of Champigny near Chinon ‹Sudre et Loire›, from the 16th century. — Fig. 5: St. Eutropius' childhood in the cathedral of Lens, from the 16th century. — Fig. 6: Allegory on pressing the juice of wine, painted by Nicolaus Pinaigrier in the cathedral of St. Etienne-du-Mont in Paris, from the 17th century.

Renaissance-decoration in France.

Whilst Renaissance in Italy had developped out of the artificial feeling of people, it was imported from there in France by mediation of the kings Charles VIIIth, Louis XIIth, and Francis Ist and of the French peerage. Whereas in Italy the change was to be feelt at first in architecture, in France it was applied art that accepted first of all the new art. Probably this was effected chiefly by the trophies and spoils brought by the French armies from their expeditions to France. Francis Ist favoured the new art by fetching Italian artists, no architects, but house-painters, sculptors, and goldsmiths, such as Primaticcio, Ross Rossi, Cellini etc., who of course soon gathered pupils of French nationality with themselves. As it is proved by still existing invoices the court got quite an amazing quantity of goldsmith's works executed, like appendages, rings, bracelets, medallions for hat and hair mostly adorned with figurative representations from the Scripture History, afterwards from mythology, at the beginning made of delicate relief with little enamel, in after-years according to Cellini's example executed in high-relief, even in complete free-hand-sculpture, often wholly enamelled. The most famous French masters in goldsmith's work were Vincent du Bonchaz, Colembert, both domicilated in Lyon; Loys Benoist, Gedanyn and Mataurin de Cosse of Tours.

Most likely it is to be owed to Cellini's influence that up to Henry IIIrd's reign the artistic school as it came from Italy was kept. After this time, people attach more stress on the material value of trinkets than on its artistic structure. Colours disappear, diamonds came to the front, and with this the artistic elegance of jewelry is all over. Many artists, however, by their designs of trinkets have deserved well of goldsmith's art without having executed them themselves, e. g. J. Andruet du Cerreau, 1515—1585, in Paris and Orleans, Woliriot, native Lotharingian, who in 1560 had his flowering time in Lyon, Hans Collaert, Paul Vlynt, Adrian St. Hubert of Antwerp, Michel Blondus known for his compositions of watch-cases, René Boyvin of Angers who from 1563 to 1580 was working as an engraver and has left a stiched book with designs for decoration, newly edited in 1876 in Paris.

Plate 27: Vessels of precious metals.

Fig. 1: Timepiece from the collection Sauvageot, Paris, from the 16th century. ⟨Lacroix et Serré, Le moyen âge et la renaissance.⟩ — Fig. 2: Dish with enamel of Limoges made by Pierre Reymond. ⟨Wyatt, Metalwork.⟩ — Fig. 3: Dish for sweets with cameos from the 17th century. ⟨Havard, Dictionnaire de l'ameublement et de la décoration.⟩ — Fig. 4 and 7: Watches from the collection Sauvageot, Paris, from the 16th century. ⟨Lacroix.⟩ — Fig. 5: Dish made of lapis lazuli in gilded silver setting from the 17th century in the gallery Apollo, Paris. ⟨Havard.⟩ — Fig. 6: Censer from the 17th century, in the Museum of Cluny. ⟨Wyatt.⟩ — Fig. 8: Vinegar-jug in the Louvre, Paris, from the 16th century. ⟨Wyatt.⟩

Plate 28: Metal-works.

Fig. 1: Gunpowder-bag. ⟨Lacroix et Serré, Le moyen âge et la renaissance.⟩ — Fig. 2: Spurs from the 16th century, now in the museum of Cluny. ⟨Lacroix.⟩ — Fig. 4: King Francis Ist's helmet, now in the medallion-cabinet of the National Gallery, Paris. ⟨Asselineau, L'armure.⟩ — Fig. 7: King Francis Ist's shield, now in the medallion-cabinet of the National Gallery, Paris. ⟨Lacroix, Le moyen âge et la renaissance.⟩

French book-ornamentation.

In France that was the cradle of Gothic art its displacement by the new style of course met with greater difficulties than in Italy, nay, than in Germany. Thus it came that the exertions of single princes for this purpose were supported only in a little degree or not at all by the native artitsts. Consequently a mixed style of Gothic art and Renaissance was produced which exhibited in book-ornamentation too. But whilst in Germany during the transition period a kind disposition of the artists for the new art is reflected, in France just the contrary took place; whilst in Germany people endeavoured to emancipate the new art from the Italian one, there were in France no artists that had mastery of the new art in such a degree as to be able to work self-actively; the result was that printers were forced to have their ornaments copied according to Italian elements. Only by Francis I^{st's} exertions the proper French Renaissance was created, but especially an original book-ornamentation. This monarque tried to promote art of printing chiefly by instituting places of court-printers which were richly endowed, by privileges against pirated editions etc. Although in his accession to the throne in 1518 in Paris prints with ornamental decoration were produced, these yet were throughout nothing but imitations of Italian or German ornaments. Only the regent and professor Geofroy Tory, born in 1480 in Bourges, in 1519 began to furnish the printers drawings for their illustrations of books, after having studied the new art for two years in Italy. The first prints of his designs are used by the printer Simon de Cotines. He is the first French artist that without any admixture of Gothic elements works in the new art, doing it in a form which remained classical for French book-ornamentation. All the later French masters joined the school created by Tory, except Oronce Fine who treates the new art in quite an individual manner.

In Paris art of printing by instigation of the prior of the Sarbonne, Jean de la Pierre, in 1469 was imported by three Germans, Martin Crantz, Michael Freiburger, and Ulrich Gering, whose first works were printed in Roman, which, however, soon was displaced by French-Gothic types. Allured by granted immunity of taxes nearly fifty printers already existed in Paris about 1500. Generally drawers and form-cutters always were two different persons, more frequently printers and form-cutters were one and the same person. The first printer that since 1486 produced the prayer books being so fashionable in France, was Simon Vostre who was succeeded by Philippe Pigouchet and Antonie Verard and many others. But in these prayer books there was, of course, French-Gothic style prevailing, but mostly painted by hand. Only Henry Estienne, ancestor of the family of

Stephanus who has well deserved of art of printing in France, since 1500 used decorating initials of a marked Renaissance-style, but, it is true, copies of Italian originals, as well as the printing offices of Wolfgang Hopyl, Berthold Rembolt, François Regnault, Conrad Resch, André Boncard, Jean Petit etc. When Simon de Colines in 1521 married Henry Estienne's widow and took possession of this printing office, by instigation of Geofroy Tory all Gothic was rejected and this workshop passed to Renaissance. Oronce Fine, too, since 1530 was working for this printing office and Tory for Robert Estienne, Henry Estienne's son, who after his protector Francis I^st's^ death was forced to flee to Geneva for reason of his Katalonian tendencies. Robert Estienne's brother, Charles Estienne, since 1536, was also working as a printer in Paris with such a success that even the court-printers, Guillaume Morel, 1548—1564, did nod avoid copying his book-ornamentation. Other Paris renowned printing offices were Philippe le Noiv, 1514—1531, Michael Vascosan, 1530—1576, a brother in law of Robert Estienne, Jean Roigny, 1529—1562, Mathieu David, 1544—1556, Charles Perier, 1550—1560 etc. For the longest time there was active Sebastian Nivelle's printing office, 1549—1603, who also worked together with Guillaume Merlin, 1538—1570, and Guillaume Dosboys, 1549—1566, and published most remarkable prints. Besides there were practising this art in Paris with a good success: Fleury Prevost, 1567—1580, Jean Ruelle, 1544—1571, Michel Fezaudat, 1541—1552, Cl. Chevallon and his heirs, 1452—1556, and Michel Sonnius, 1566—1591.

Beside Paris the single centre for book-ornamentation in France is Lyon where art of printing was imported in 1473 and took the same course of development like in Paris. The oldest important printers were Jacques Saccon, 1498—1522, and Jean Marion, 1500—1530, who, however, printed only copies of German and Italian wood-cuts; likewise the printer Sebastian Gryphius, a native German, 1528—1556 used only German wood-cuts. Hans Holbein, too, resp. Luetzelburger worked for the Lyon printers Melchior and Caspar Prechsel, 1532—1542, and Jean Frellon, 1542—1547. Just in the middle of the 16th century in Lyon an independent school for art appears, that of Bernard Salomon, called »le petit Bernard« (the little Bernhard) to whom book-ornamentation has to owe a quick and productive development. Especially his Bible-pictures had a decisive success and brought a great profit to their editor. The same merit has his contemporary Guillaume Roville, 1545—1547, whose prints are not inferior to those of Tourne, then Claude Sennaton, 1550—1580, Hugues de la Parte, 1539—1600, Antonie Vincent, 1537—1563, Barthelemy Honorat, 1554—1587, Macé Bonhomme, 1544—1560, Denys de Harsy, 1531—1544, and Etienne Dolet, 1538—1545.

Plate 29: French Book-ornamentation.

(Butsch, Bücherornamentik der Renaissance.)

Fig. 1 and 7: Initials drawn by Oronce Fine in Michel Vascosan's publishing house, Paris 1552. — Fig. 2 and 3: Initials from Philipp Rithore's publishing house in Paris. 1552. — Fig. 4 and 22: Initials from Abel Angelier's publishing house, Paris 1584. — Fig. 5: Initial, dating from Geofroy Tory in Simon de Coline's publishing house, Paris 1521. — Fig. 6, 12, and 13: Initials of Tory's school in Estienne's publishing house, Paris 1545. — Fig. 8, 10, and 25: Initials from Salomon Bernard's school in Jean de Tournes' publishing house, Lyon 1576. — Fig. 11 and 15: Marginal adornament drawn by Salomon Bernard (Petit Bernard) from Jean de Tournes' publishing house, Lyon 1557. — Fig. 14 and 23: Vignettes of various Lyon printing offices. 1560. — Fig. 16: Vignette from Tory's school in Charles Estienne's publishing house, Paris 1545. — Fig. 17: Initial made by Geofroy Tory from Simon de Coline's publishing house, Paris 1521. — Fig. 18, 19, 20, 21, and 25: Initials from Jean de Tournes' publishing house, Lyon 1559. — Fig. 24: Head-piece of unknown origin.

Plate 30: Illuminating.

Fig. 1: Cameo-painting from a prayer book of King Henry II. of France in the Bibliothèque Nationale in Paris. (Lacroix et Serré, Le moyen âge et la renaissance.) — Fig. 2: Side of a prayer book from the 16th century. (Collection Spitzer.) — Fig. 3: Marginal adornment of a manuscript of Mathias Corvin from the 16th century in the Bibliothèque Nationale, Paris. (Lacroix et Serré.) — Fig. 4: Facsimile from »Recueil des rois de France« (Reception of the French Kings) by Du Tillet from the 16th century in the Bibliothèque Nationale, Paris, representing Francis Ist. (Lacroix et Serré.)

Plate 31: French velvet- and silk-figures.

Fig. 1 and 2: Velvet-figure. (Dupont-Auberville, L'ornement des tissus.) — Fig. 3, 9, 10, and 11: Silk-figure. (Dupont-Auberville.) — Fig. 4 and 6: Silk-figure. (Fischbach, Gewebe.) — Fig. 5: Silk-figure. (Fischbach.) — Fig. 7 and 8: Satin-figure. (Dupont-Auberville.)

Plate 32: Embroideries.

Fig. 1: Embroidery of Henry IInd's bed. (Dupont-Auberville, L'ornament du tissus.) — Fig. 2: Coif from the 16th century. (Lacroix et Serré, Le moyen âge et la renaissance.) — Fig. 3: Table-cloth with ornaments of black velvet put on a ground of white satin. (Dupont-Auberville.) — Fig. 4: From bed-hangings of the King's travelling-necessaries. (Dupont-Auberville.) — Fig. 5, 6, 9, 10, 12, 13, 14, and 16: Various embroideries. (Dupont-Auberville.) — Fig. 7, 8, 11, and 15: Different laces. (Racinet, L'ornement polychrome.)

The German ornament.

Plate 33: Mural-pictures.

Fig. 1 and 2: Pictures from the antiquary of the Royal residence in Munich. 1600. (Ewald, Farbige Dekorationen.) — Fig. 3, 4, and 5: Pictures from the town-church of Freudenstadt, photographed by Robert Knorr, teacher for applied art, Stuttgart. (Dolmetsch, Ornamentenschatz.)

Plate 34: Painted wood ceilings.

Fig. 1 and 3: Painted wood ceilings in Castle Neuhaus in Bohemia from the 16th century. (Ewald, Farbige Dekorationen.) — Fig. 2: From the ceiling of the hall of the knights of Castle Heiligenberg, photographed by H. Dolmetsch.

Plate 35: Ecclesiastical wall-decoration.

⟨Enzler, Zettler, and Dr. Stockbauer, Ausgewählte Kunstwerke aus dem Schatze der Reichen Kapelle in der Königlichen Residenz, München.⟩

View of the northern wall with door of the Reiche Kapelle in the Royal Residence, Munich.

Renaissance-ornamentation in Germany.

During the first three fourths of the 15th century the Burgundian mode governed all over Europe, chiefly over Europe and France, whereby in both these countries, too, the luxury of clothes and trinkets was increasing in a manner that had not yet existed till then. In these circumstances goldsmith's work obtained an important part in manners, thoughts, and taste of that time. From the invoices for the princes' households of that time there resulted immense sums for trinkets that in good times were a luxury, but in bad ones often had to serve for finding money, for it often was the single possession of princes and nobles. Trinkets then were an investment of capital as well as nowadays government-stock, dead capital, it is true, which, however, at special occasions one might wear about oneself on view.

Whereas in France the introduction of Renaissance principally started from pompous kings, in Germany, where the emperor was short in power and funds for it, commonalty chiefly was the bearer of this movement, supported by the craft that, coming from Italy, was well educated with regard to technics. First of all in Augsburg the new movement gained a firm footing in connexion with Nuremberg artists. As the artists of that epoch were not only painters or drawers, but also goldsmith's, engravers and copper-engravers, we must suppose that works made of precious metals dealt with a great predelection with were not copies of existing objects, but free compositions of them. From the Flemish Middle- and Upper-German school in this transition period there are to be mentioned especially in Ulm: Zeitblom and Martin Schaffner, the Flemings Jan Grossaert called Mabuse, Jean Swart from Groningen, Pieter Christus; in Colmar: Master Martin Schongauer; in Cologne: Bart Bruyn; in Francfort: Konrad Fyoll; in Aschaffenburg: Mathias Gruenewald; and in Thuringia: Lucas Cranach. In Nuremberg there were working in goldsmith's art especially Albrecht Duerer's pupils: Albrecht Altorfer, Hans Sebald, Barthel Beham, Augustin Hirschvogel, Hans Schäuffelin, and Georg Penz. With these there besides join: Christian Amberger from Ulm, Hieronymus Hopfer and Hans Brosamer. In Augsburg there worked in the new art especially Hans Burgkmair, beside him the junior Hans Holbein whose disigns are far superior to all those dating from this time. Other artists working for trinkets are Wentzel Famitzer in

Nuremberg and Hans Muelich in Munich (1515—1572), famous for his drawings made for the pompous armours of French kings and his inventory of the Munich treasury executed in miniature-painting. From the beginning of the 17th century there are still to be mentioned Christof of Sichem and the two Augsburg copper-engravers Paul Birkenhultz and Daniel Miquot.

The development of the forms concerning its style is to be recognised best with appendages grouped mostly round a centre with pearls or other drops hanging freely. There were appendages of hats and barrets, neck-pendants joined with a chain of a neck-band and ear-drops. In the middle ages these appendages had religious relations, dating mostly from churches or being sacred, whereas in Renaissance-time mythological or historical figures were preferred, at last love-scenes etc., figures of animals, too, in the centre. The latter probably served for marks of princely dedications, consequently they were equivalent to modern orders. Medals, medallions or cut stones have been worn on chains for the neck. Ear-drops being an oriental jewelry, they are especially frequent in countries the inhabitants of which have often met Moorish and Arabian people like in Spain, Sicily etc., whilst in Germany they occur not so frequently as there and then only with women. In Early-Renaissance they are as light as air such as to suppress any apparent charging the ear which is not at all the case in Late-Renaissance. The decoration round deck and bust consisted of chainlike formations which, however, degenerated such as to be similar to metal candles or being in connexion with the girdle, spanning over the whole body down to the knees with a net of gold chains. Over the proper bust there was often worn a broad chain totally consisting of firm links which has instigated the fancy of Renaissance art to produce charming formations, to arrange large links composed in a central manner and adorned with enemal or juwels closely beside one another or to express in rhythmic alternation, two elements differently designed which clearly exhibit the tendency for hanging decoration. A special class of these chains are chains for brides which mostly have heraldic pictures; on account of their expensiveness they often are only half ones and fixed on the shoulder. Many links still are enriched with pearls or hanging motives each of which is forming a separate appendage. It is evident that such a chain had to harmonize with the cut of the dress; when this dress is four-covered, the chain is held fast on the breast by a brooch and from there in two ends falls down to the waist where it continues as a belt with hanging ends or is connected with the broad girdle by a clasp or a buckle.

With this woman's neck-decoration those chains are not to be mistaken which are worn by men as presents made by princes or as marks of distinction of their rank to which chains of riflemen belong too.

The girdles often are chains with larger links equally or rhythmically changing, but people mostly were satisfied with leather-girdles often coated with velvet, adorned with gold embroderies, buttons, metal mountings, or pearls. But their limbs are mostly made of gilded or silvered bronze-founding. Women's bridles were worn in two various ways, either firmly put round the waist with a lock more or less decorated in their middle, often lying very deep. The girdle vertically falls from it down to the border of the skirt ending there in an appendage that gives full scope to the goldsmith's fancy. Or it is loosely laid round the waist, sitting close on the left, on the right with a lock upon the haunch above which the dress was caught up; a vertical part of it hangs down or a chain with a bag, a dagger, a bunch of keys etc. The latter manner seems to have been principally the home-dress.

The buttons of this time were things of decoration being variously used. For locking they ordinarily only mark those places where hidden laces were put on; they mostly served for decorating in rows garments, trousers, and the coverings for the head. The use of bracelets in Renaissance-time seems to have been very limited, but the more rings were worn and, wearing gloves being indispensible, there rings were worn over them, or the glove was cut open over the place concerned. The rings were worn on all the fingers often even until the nail. In Renaissance-time that extremely old motive of a snake a precious stone in its head was usual. Chiefly upon wedding-rings quite a special care was bestowed. For reason of the convenience when being worn many rings were adorned with enamel being not salient above their gold instead of prominent precious stones.

On the technics of goldsmith's art there exists a very good work composed by Benvenuto Cellini entitled: Duo Trattati di Benvenuto Cellini scultore florentino uno dell' oreficeria, l'altro della Scultura. Milano 1811 (Two Essays by B. C. sculptor in Florence, one concerning goldsmith's work, the other concerning sculptor's art. Milan.) translated into German by Justus Brinkmann.

Plate 36: German Renaissance-ornamentation.

Fig. 1, 7, 10, 17, 18, 19, 22, 23, 25, and 27: Trinkets from the collection Spitzer, Paris. ‹Collection Spitzer.› — Fig. 2: Link of a chain on a picture in Royal Gallery, Cassel. ‹Luthmer, Goldschmuck der Renaissance.› — Fig. 3: Button from the Royal crown-treasury, Berlin. ‹Luthmer.› — Fig. 4: A bride's chain on a picture in Germanisches Museum, Nuremberg. ‹Luthmer.› — Fig. 5: Ring. ‹Luthmer.› — Fig. 6: Brooch. ‹Luthmer.› — Fig. 8: Appendage on a picture of H. Baldung Grien, Woerlitz. ‹Luthmer.› — Fig. 9 and 20: Buttons on a picture in the Castle of Schleissheim. ‹Luthmer.› — Fig. 11: Neck-chain of an ancestral portrait in the Castle of Gotha. ‹Luthmer.› — Fig. 12: Appendage in Bayrisches Nationalmuseum, Munich. ‹Luthmer.› — Fig. 13: Appendage on the Great Monstrance in the Cathedral of Muenster Freiburg in Baden. ‹Luthmer.› — Fig. 14: Button from a picture by De Wite in Schleissheim. ‹Luthmer.› — Fig. 15: Appendage on a picture in Woerlitz. ‹Luthmer.› — Fig. 16: Centre-piece from the 16th century, now in Antique Museum of the Hall-door, Brussels. ‹Lacroix et Serré, Le moyen âge et la renaissance.› — Fig. 21: Pending from a portrait in Städtisches Museum, Cologne. 1572. ⟨Luthmer.⟩ — Fig. 24: Hat-button on a picture in Royal Gallery, Cassel. ⟨Luthmer.⟩ — Fig. 26: Cross from Herzogliches Museum, Gotha. ⟨Luthmer.⟩ — Fig. 28: Reliquary. ⟨Luthmer.⟩

Plate 37: Works made of precious metals.

Fig. 1: Jug in Gruenes Gewoelbe, Dresden. ⟨Gruner, The Green Vaults in Dresden.⟩ — Fig. 2, 4, 5, 7, 8, and 9: Vessels made of gilded silver from Nuremberg, Augsburg, Cologne, Luebeck, Hamburg, and Francfort-on-the-Main. ⟨Wyatt, Metalwork.⟩ — Fig. 6: Beer-jug in St. John's, Schweinfurt. ⟨Lacroix et Serré, Le moyen âge et la renaissance.⟩

Plate 38: Vessels consisting of glass and rock crystal.

Fig. 1 and 6: »Wiederkomm«-⟨leave-taking-⟩glasses by Jakob Braun, Nuremberg. ⟨Nesbitt, Catalogue of the collection of glass formed by Felix Slade.⟩ — Fig. 2: Beer-glass with the inscription: Das Heilige römische Reich mit sampt seinen Gliedern. ⟨The Holy Roman Empire together with its limbs.⟩ 1572. ⟨Nesbitt.⟩ — Fig. 3: »Wiederkommglas« in the South-Kensington-Museum. 1616. ⟨Nesbitt, A descriptive catalogue of glass-vessels in the Kensington-Museum.⟩ — Fig. 4: Cup with lid made of rock-crystal in the Gruenes Gewoelbe, Dresden. ⟨Gruner, The Green Vaults in Dresden.⟩ — Fig. 5: Jug of rock-crystal in the Gruenes Gewoelbe Dresden, perhaps by the famous stone-cutter C. B. Metellina, Milan. ⟨Gruner.⟩

Plate 39: Glass-pictures.

Fig. 1: Window from St. Peter's, Cologne. 1530. ⟨Kolb, Glasmalereien des Mittelalters und der Renaissance.⟩ — Fig. 2 and 4: From St. Peter's church, Cologne. 1528. ⟨Schaefer und Roßteuscher, Monumentale Glasmalereien des Mittelalters und der Renaissance.⟩ — Fig. 3: Part of the »Tucherfenster« ⟨Window presented by the family of Tucher⟩ in St. Laurentius', Nuremberg. 1601. ⟨Kolb.⟩ — Fig. 5: Window with escutcheons in Germanisches Museum, Nuremberg. 1548. ⟨Kolb.⟩ — Fig. 6: Window in Städtisches Museum, Cologne. 1538. ⟨Kolb.⟩ — Fig. 7: Window from the Cathedral, Cologne, from the 16th century. Style of transition. ⟨Kolb.⟩

Plate 40: Swiss glass-paintings.

Fig. 1: Glass-painting from 1583 in possession of the rifle-association, Winterthur. ⟨Meisterwerke der Schweizer Glasmalerei.⟩ — Fig. 2: Barber's shop from the 16th century, now in the Museum of Cluny. ⟨Lacroix et Serré, Le moyen âge et la renaissance.⟩ — Fig. 3: Picture of Emperor Henry the Saint, founder of the Basel Cathedral, from the cloister of the monastery of Wettingen, painted by Georg Wannewetsch of Esslingen who in 1554 was made, free of his corporation of Basel. ⟨Meisterwerke.⟩ — Fig. 4: Glass-painting dedicated by Jakob Krieg von Bellikon and by Hoeschlin's models 1542. Painted by the Zurich glass-painter Carl of Egeri, now in Vincent's collection, Konstanz. ⟨Meisterwerke.⟩

Plate 41: German ceramics.

Fig. 1, 2, and 6: Rhenish jugs. ⟨Bach, Renaissance.⟩ — Fig. 3: Jug from the 16th century. ⟨Kunst und Gewerbe, 1880.⟩ — Fig. 4, 5, and 7: Clay-jugs. ⟨Lacroix et Serré, Le moyen âge la Renaissance.⟩ — Fig. 8: Old-German beer-jug. ⟨Lacroix et Serré.⟩ — Fig. 9: Glazed stone jug in Kunstgewerbemuseum, Berlin, photographed by Prof. F. Everbeek, Aachen. ⟨Gewerbehalle 1886.⟩

German book-ornamentation.

In Germany book-ornamentation is as old as art of printing, for the Latin Psalterium edited in 1457 at Mayence by Fust and Schöffer already contains 306 initials, carved in wood and metal and printed in two colours. But double-printing seems to have made great difficulties, as in later printings the passages were left free for the illuminist. Only in the seventies other printers, too, began to adorn their works typographically with ornaments. Thus in 1472 in Augsburg a Gothic alphabet of initials was published, at first used in Rempipollis' Guldin-Bible, then in bishop Salomo's Glossa in Konstanz; the Augsburg Bibles of the eighties, too, often are ornamented with initials carved in wood. Pages with artificial fillets are to be found at first in the Cologne Bible of 1480. But all their ornaments are Gothic giving gradually way to Renaissance ornaments in the 16th century.

Thus in Bernhard Breydenbach's »Reise im heiligen Lande« (Voyage in the Holy Country) edited in 1486 in Mayence we find in the wood-cut on the title-page eight Italian putti drawn in an excellent execution by Erhart Renwich. But such Renaissance-ornaments are only isolated and just when the old theories of the middle ages appeared and humanism gained a footing, reformation also entered art in Germany. After the Dutch realism of the painter Hubert of Eyck had prepared the way of realistic art in Germany, the classic style founded on antique base from Italy entered Germany, at first in graphique art which shows us how German drawers have adopted the classic forms, from the riches of which they then took advantage for their native country. Whereas in Italy, when art of printing was imported, the new style had already existed for half a century and consequently the book-ornaments no more represent its beginning, just the products of Early-Renaissance in Germany are rather interesting, as here on account of easily dating book-ornamentation we have a secure footing for the epochs of the receipt and use of this style.

During Renaissance there existed varoius centres of art for book-ornamentation in Germany; such as first of all in Augsburg which for a great part owes its large abundance, especially in artistic trade, to Emperor Maximilian Ist's kind disposition. The rupture with Gothic art was already effected by Hans Burgkmair born in Augsburg, who in 1506 and 1507 studied classic forms in Italy, in the title-page of the work: Dyalogus Johannis Stamler Avgvstus de diversarum glucium (sic! Probably to be read: gentium) sectis et mundi religionibus. (John Stamler's [living in Augsburg] dialogue about the sects of the different nations and religions of the world) Fol. Augustae (Augsburg) V. (printed by) Erhard Oeglin et Jörg Nadler 1508. Burgkmair soon become the favoured drawer of Augsburg printing offices. Another master was the painter Daniel Hopfer who since 1514 gave the Augsburg printing offices individual-characteristic drawings for trimmings and initials that exhibit by no means any Italian influence. A good form-cutter and drawer also was Jost Dienecker who, as it is proved, lived from 1512 to 1548 in Augsburg, as well as his sons Samson and David.

The introduction of printing art in Augsburg happened in 1468 by Georg Leiner whose works excelled in very beautiful Gothic characters and careful printing; the Roman ones imported by him were not able to exist opposite the Gothic reminiscences being generally usual. He was assisted by Johann Schüssler, 1470—1472, Johann Bämler, Anton Sorg, and Peter Benger, and by the printing office of St. Ulrich's and St. Afra's Benedictine Monastery. Besides Erhard Ratdolt, who formerly had worked in Venice, from 1486 continued his activity in Augsburg, he is succeeded by Johann Schönsperger the elder who edited only popular works in German language together with his son Hans. The ancestor of a famous family of printers was Hans Othmar at the beginning of the 16th century, who began his publications with a book nicely ornamented: Pomerinus de tempore et quadragesimale by the Franciscan friar Pelbartus of Temesvar. His son has aquired great services to book-ornamentation and -illustration. The productions that were technically most perfected of the Augsburg printers were made by Erhard Oeglin, who was Hans Othmar's contemporary and born in Reutlingen too; for his merits he was appointed the emperor's printer. About 1514 the printer Johann Mueller began his working in Augsburg employing chiefly Burgkmair's and Hopfer's drawings for his illustrations, and in 1518 Dr. Sigmund Grimm and Marx Würsungs who also used Holbein's drawings. In 1822 the Swiss printer Heinrich Stegner began to work soon climbing up to the rank of the first printer of Augsburg.

Marvellous to say, at that time art of printing, in Augsburg the word »A trade in hand finds gold in every land« answered badly, for only Erhard Ratdolt gained welfare there, which, however, he had already attained during his working in Venice, whilst all the other printers were ruined with financial regard, as it is to be seen from the legal records of Augsburg.

In Nuremberg art of printing was imported two years later than in Augsburg by Johann Sensenschmid about 1470; together with him Heinrich Skefer from Mayence was working. In a short time several printers had settled here whose productions soon attained world-wide reputation. But here book-ornamentation only in 1483 in the German Bible by Anton Skoberger became important, however printed with wood-cuts that were used for the Low-German Bible edited three years ago in Cologne and bought there by Heinrich Quetell. Wood-cuts executed by Nuremberg merchants were published in the »Schatzbehalter« (say: Choice-selection) imitated to Michael Wohlgemut's drawings who had much success; consequently already two years later a »Weltchronik« (Chronicle of the world) by Hartmann-Schedel with cuts according to Wilhelm Pleydenwurf's and Wohlgemut's drawings was edited. The initials of these books for a long time kept the Gothic character, till Albrecht Duerer during his second Italian voyage in 1513 evidently passed to Renaissance. Especially remarkable is a large children's alphabet designed by Duerer as well as two smaller ornamental alphabets. His pupil was Hans Springinklee who has furnished excellent works. Besides there still were various inferior masters mostly unknown by name whose principal activity is an imitation of the former ones having ill suceess. Duerer's and Springinklee's works are divided among three Nuremberg printing offices, those of Georg Stüchs of Sulzbach, of Hieronymus Hölzel, and Pr. Peypus who was the first Nuremberg printer that employed Roman characters. In High-Renaissance in Nuremberg especially Jost Amman, Virgil Solis, Hans Sebald, and Beham are known as masters in book-ornamentation.

An important position in book-ornamentation is occupied by Appenheim, where already since 1512 ornamental initials in Renaissance art are used by the printer Jacob Sköbel; but Oppenheim was no place fitted for raising this art up to a permanent flower.

Very old is the art of printing by wood tables, that, as it is known, preceded type-printing, in Basle, where in 1476 a German edition of the work »Speculum humanae salvationis« (looking-glass of human salvation) was edited with wood cuts being, it is true, coarse. Already in Brant's »Narrenschiff« (the fools' ship) published in 1494 the tendency is manifested to develop book-ornamentation on a realistic basis and in an artistic manner, especially by Schongauer's and van Eyck's influence. However the battle between Gothic and Renaissance art continued for a long time here too, even after spreading initial-decoration; even not before 1513 the first work in Renaissance-ornamentation was published by Michel Furter who began to print in 1490. Of an incisive effect is Hans Holbein's working, who in 1518, already penetrated by Renaissance was active in Basle where on account of his intelligent forming the subjects of art, of his fortunate melting the figurative with the ornamental, of his incomparatively true representation of nature, of his thorough knowledge of architecture soon became setting the fashion so that printers deemed it an honour to publish his drawings. His brother Ambrosius also applied himself to book-ornamentation, but he could not become equal to his brother and disappeared from Basle after three years. Whereas an unknown master signing S. F. produced the most excellent things in metal-cutting, it was the master Hans Lützelburger that executed Hans Holbein's most drawings in wood cut.

Nearly at the same time when Michel Furter was active, Johann Froben from Hammelburg in Franconia worked as a printer, publishing at first the latin Bible in folio; it is he to whom principally Basle had to thank for its being the metropolis of German art of printing for half a century. Beside him among the printers in Basle are remarkable: Thomas Platter, Johann Petri, Pamphilius Gengenbach, Andreas Cratonder, Thomas Wolff, Valentin Curio, who gradually caused the greatest contemporary learned men like Erasmus of Rotterdam, Thomas Morus to get their works printed in Basle printing offices. Not before Holbein's death a stopping in book-ornamentation happened, but Johannes Oporinus still was assisted by great artistic authorities for illustrating his printings. After him the artists could no longer be retained in Basle; consequently this city descended to insignificance again. In Zürich art of printing was introduced not before 1520 by Hans Hager and Christoph Froschauer, but only the latter was doing well in book-ornamentation, however mostly following copies of Basle woodcuts. Although Johann Gutenberg from 1436 till 1444 in Strassburg have been at work on the construction of a printing-press he only 15 years afterwards together with Fust produced real printings in Mayence; consequently this latter instead of Strassburg is to be considered as the cradle of printing art. The first prints with movable letters were executed in Strassburg by Johann Mentelin and Heinrich Eggestein in 1466; the latter published Wolfram von Eschenbach's »Parzival« and »Titurel« heroic poems in Roman in 1477. The wood cuts in the German »Belial« published in 1478 by the printer Heinrich Knoblochzer still are very primitive, and not before 1490 book-ornamentation under the influence of Colmar school is a good one, although being attached to Gothic art could not be useful to realism. After humanism had been more forced through by the great learned men Sebastian Brant, Geiler von Kaisersperg, Jacob Wimpheling, Beatus Rhenanus, and others, leading artists like Johann Wechtlin and Hans Baldung-Grün appeared too. The transition to Renaissance was about in 1512. Form-cutters are not known by name in Strassburg. It is true that Strassburg in book-ornamentation can be no match for any other town neither with regard to quality nor to quantity, but this art here rose to a great height and even surpassed Basle by the exertions of the printers Fischart, Tobias Stimmer, Speckle, and Wendel Dietrich. During Early-Renaissance there existed here printing-offices especially of Johann Grüninger, Martin, afterwards Johann Schott, Matthias Hupfuff, Johann Knoblauch, and Martin Schürer.

The town of Hagenau had its first printer in Heinrich Grau who in 1510 began to ornament his books; when this printing-office had ceased to exist in 1518, Thomas Anselm of Tübingen opened another one the works of which often adorned Wechtlin's, afterwards Johannes Secerius' works.

Although Mayence be the cradle of printing art, it yet was soon surpassed by Basle, Strassburg, Nuremberg, and Augsburg. Besides Peter Schöffer there lived only printers of a short activity like Heinrich Bechtermünze, Erhard Remvich, Friedrich Misch, Peter von Friedberg and others. One of the best illustrated works of Early-Renaissance is Bernhard Breitenbach's »Reise ins heilige Land« (Voyage into the Holy Country) with plates drawn by the painter Erhard Remvich who also was the printer of that work which contains very large plans and views of the town. Another illustrated work printed by Schöffer in 1492 is »Cronecken der Sassen« (Chronicle of the Saxon people); in 1518 in his works a great revolution is manifested, but unfortunately we do not know the names of the artists that have drawn his cuts. The vignettes and initials of this epoch are excellent, of a perfect technical performance.

At the same time as in Strassburg in 1466 the first printing office was opened in Cologne by Ulrich Zell of Hanau who was succeeded by Arnold Ter Hoernen, 1470—1483, Johann Kollhoff, 1470—1500, Heinrich Quentell, 1479, and his successor Gottfried Hittorp, 1511, whose prints exhibit a complete beauty; especially the latter's Bible is an excellent work of art. But here the change of style is performed only slowly, as Cologne had little connexion with Italy, and consequently not before the twenties of the 16th century in Cologne prints Renaissance-ornaments come forth; they are, however, mostly copies of the Basle and Nuremberg school. Only in 1524 the painter Anton Walusom or Anton von Worms produced plenty of independent works beyond belief for book-ornamentation, especially children's alphabets.

Wittenberg, being strictly spoken rather insignifiant in art of printing, had to owe to two great men that it soon became one of the most productive and renowned places for printings in Germany. One of them was Dr. Martin Luther, the other Lucas Cranach the elder, the founder of the Low-Saxon school of painters, both being in close friendship with one another. It is evident that an artist such as Lucas Cranach had a very beneficient and promoting influence on book-ornamentation and illustration. A great printer in Wittenberg is Johann Grünenberg 1509 who published plenty of Cranach's works producing especially trimmings. Only for few years, until 1529, was active the printer Melchior Lotter of Leipzig succeeded by Nickel Schyslentz and Joseph Klug. Especially known by their printing Luther's and Melanchthon's prayer-books was Georg Rhau; the most important printer in Wittenberg in the 16th century was Hans Lufft who at first printed Luther's first Bible with illustrations by Lucas Cranach in a very artificial outfitting as well as Luther's Latin scriptures. Up to the middle of the 16th century Wittenberg maintained its first rank, but then it was surpassed by Leipzig.

In Erfurt at the same time as in Leipzig, in 1481, the first printer is to be met with and with him the form-cutter Hans Sporer, afterwards Melchior Sachs who also printed many publications of Luther and Melanchthon, but, it is true, according to Wittenberg originals, and Mathias Maler.

In High- and Late-Renaissance the living masters had been displaced by small craftsmen of the later period whose works in spite of all dexterity and artificial education, in spite of the then great acquaintance with the forms and tendencies of Renaissance exhibited by no means the classic feature of Early-Renaissance. But here affectation and excess are equalized by aspiring strict truth to nature. Certainly the propagation of copper-plate-engraving which is executed by the artist himself (after Albrecht Duerer's good success) has attributed much for preventing many artists from working for form-cutters who often ruined the best drawing. Thus most pupils of Albrecht Duerer like Barthel Beham, Hans Sebald Beham, Heinrich Aldegrever, Georg Penz devoted themselves exclusively to copper-plate-engraving, whereas only Hans Brosamer, Hans Sebald Beham, and Virgil Solis occupied themselves with illustrations for woodcuts. Especially initials leave much to be desired in comparison with the former ones. A short flowering-time happened to book-ornamentation, when Jost Amman and Tobias Stimmer had taken up wood-cut-illustration, though these artists could not deliver themselves from affectation of their epoch, have produced great works by their gift of invention, correct drawing and truth to nature.

In a very useful manner in the 16th century Christian Egenolph of Hademar, 1513—1555, was active whose works were often illustrated by Hans Sebald Beham. Beside the contemporary printers Peter Brubach, H. Gülfferich, Georg Rab and Weigand Hand first of all Sigismund Feyrabend, 1559—1590, is worth to be noted whose business soon had such an extent that he was forced to associate himself with various native or foreign printers; Jost Amman and Tobias Stimmer have drawn plenty of wood cuts. Francfort-on-the-Main up to the 17th century remained a settlement for book-ornamentation and -illustration, even when many books were illustrated with copper-engravings by De Bry brothers and Mathias Merian.

In Ingolstadt towards the end of the 15th century the mathematician and astronomer Peter Apianus had established a printing office and together with the painter Michel Ostendorfer edited illustrated printingworks. David Sartorius, too, is worth mentioning.

The most important printer of the later epoch in Basle was Johann Herbst, 1541—1566; he besides was the single printer there in this time that adorned his books with original decorations. He is succeeded by Tobias Gwarin who at the beginning employed French illustrations and afterwards published German original work, especially such that was produced by Tobias Stimmer.

In Zurich Christoph Froschauer working during Early-Renaissance if not as to quantity, yet as to correctness and pleasant form is surpassed by Andreas Gessner, 1535—1560, working in High-Renaissance, who interested in his book-illustration the best Helvetian artists such as Hans Rudolf Manuel Deutsch, Jos. Murer, Rudolf Wyssenbach, and Christoph Schweitzer, in Nuremberg Peter Flötners too.

In Strassburg during High-Renaissance printers instead of the initials liked to employ the great (German) black letter type which were drawn by masters of writing art, the artistic value of which however is doubtful. In contrast with them in Strassburg prints very nice signets come forth, especially in those by Crato Mylius and Wendelin Rihel, drawn by David Kandel. In Strassburg the best illustrator of books during High-Renaissance was Tobias Stimmer, that worked chiefly for Theodosius Rihel and Bernard Jobin.

The transition to High-Renaissance in Nuremberg is formed by the initials which Sebald Beham furnished to the printer Johann Petrejus, 1526—1552; but the former already in 1535 moved to Francfort-on-the-Main. With this the originality of book-ornamentation during High-Renaissance has obtained its end in Nuremberg. The same happened in Augsburg where in the last fourth of the 16th century Michael Manger was the single printer worth mentioning. At the end of this century wood-cutting-art is degraded to a handicraft, whereby copper-printing which was increasing had great ease in displacing wood-cutting and in becoming fashionable for book-illustration.

In Vienna art of printing settled only late, for the first book that is proved to have been printed there dates from 1482. The first permanent printing-office in Vienna was Johann Winterburger's, 1492—1519, who soon caused a new rising of this art. On the same level were his successors Johann Vietor, 1509—1531, and Johann Siegriener, 1510—1545. Although in Early-Renaissance little original works were produced in Vienna, yet afterwards from Michael Zimmermann's, 1553—1565, Raphael Hofhalter's, 1556—1560, and Blasius Eber's, 1570—?, printing offices numerous prints with elegant artistic outfitting came forth.

A slower development than in Vienna book-ornamentation yet had in Munich, where in the 15th century the printers Hans Schauer, 1482, Benedikt Buchpinder, 1487, and Hans Schopsser, 1497, left some traces of their activity. Only Adam Berg, 1560—1600, raised art of printing to its highest point there by his artistic and tasteful prints; among his book-ornaments, however, there were but few originals. Only one monogram-cutter, Johann Nell, produced some good works, if we take no account of the excess of style being particular to him; Nicolaus Solis, Virgil Solis' son, also worked for this printing-office. But here, too, at length wood cut had to give way to copper-engraving in -illustration of books.

In Dillingen about the middle of the 16th century a very productive printer, Sebaldus Meyer, was working, who has produced prints of catholic-theological works ornamented very artificially; he was helped by Mathias Gerung, who was called Geron, too, a pupil of Burgkmair's.

Famous throughout all Europe was Plantin's printing-office in Antwerp and Leyden, the founder of which was Christoph Plantin, who was born in 1514 and died in 1589.

Plate 42: German Book-ornamentation.

Fig. 1, 5, and 21: Initials from Schöffer's printing-office in Mayence. 1518. ‹Butsch, Bücherornamentik der Renaissance.› — Fig. 2: Initial made by Tobias Stimmer, printed by Peter Perua, Basle. 1580. ‹Butsch.› — Fig. 3 and 6: Initials by Lucas Cranach, printed by Lufft, Wittenberg. 1512—34. ‹Butsch.› — Fig. 4 and 8: Initials from Christoph Plantin's printing-office, Antwerp. 1563. ‹Butsch.› — Fig. 7: Initial by Hans Sebald Beham, printed by Johann Petreius in Nuremberg. 1529. ‹Butsch.› — Fig. 9: Initial from Johann Herbst's ‹Oporinus'› printing-office, Basle. 1555. Copy according to Johann of Calcar. — Fig. 10: Initial by Jost Amman, printed by Sigmund Feyrabend, Francfort-on-the-Main. 1568. ‹Butsch.› — Fig. 11: Bordure from a printing-office in Cologne. 1525. ‹v. Pflugk-Hartung, Rahmen deutscher Büchertitel.› — Fig. 12: From a bordure by Lucas Cranach, printed by Gustav Grünenberg, Wittenberg 1520. ‹Butsch.› — Fig. 13: Bordure from Johann Grüninger's printing-office, Straßburg. 1519. ‹v. Pflugk-Hartung.› — Fig. 14: Bordure from Sylvan Othmar's printing-office, Augsburg. 1516. ‹v. Pflugk-Hartung.› — Fig. 15 and 18: Initials by Anton of Worms from Peter Quentell's printing-office, Cologne. 1530. ‹Butsch.› — Fig. 16 and 17: Initials of the Saxon school, printed by Hans Lufft, Wittenberg. 1580. ‹Butsch.› — Fig. 19: Initial by Michal Ostendorfer, printed by Peter Apianus, Ingolstadt. 1540. ‹Butsch.› — Fig. 20: Initial from Michael Zimmermann's printing-office, Vienna. 1561. ‹Butsch.› — Fig. 22: Bordures from Stopfel's printing-office, Strassburg, according to Hans Baldung-Grün's drawing. ‹Butsch.› — Fig. 23: Initial according to Albrecht Dürer's drawing, printed bei Eucharius Hitzhorn, Cologne. 1524. ‹Butsch.›

Plate 43: Bindings of books.

(*Lemperts, Bilderatlas zur Geschichte des deutschen Buchhandels.*)

Fig. 1: Stamped binding for Luther's works in Wittenberg edition from 1556—59, with Luther's portrait. — Fig. 2: Stamped binding with the portrait of emperor Maximilian IInd and the year 1583. — Fig. 3 and 4: Front and back of a Saxon binding from the second half of the 16th century.

Plate 44: Textile figures.

Fig. 1, 3, 7, and 10: Galloons from linen wefts from the 16th century. ‹Fischbach, Gewebe.› — Fig. 2: Embroidery in a tabernacle of the Reiche Kapelle, Munich. ‹Enzler, Zettler, and Dr. Stockbauer, Ausgewählte Kunstwerke der Reichen Kapelle in der Königlichen Residenz zu München.› — Fig. 4, 6, 8, and 9: Tissues from the 16th century. ‹Fischbach.›

The Flemish Ornament.

Plate 45: Tapestry.

Fig. 1: Tapestry representing the arrival of the image of the Virgin performing miracles from Sablons in Brussels in Charles Vth's presence. 1518. ⟨Collection Spitzer.⟩ — Fig. 2: Tapestry in Mobiliar national. ⟨Guiffrey, Histoire de la tapisserie.⟩

The Spanish-Portuguese Ornament.

Plate 46: Textile figures and embroideries.

Fig. 1, 2, 4, and 6: Spanish brocade. ⟨Dupont-Auberville, L'ornement du tissus.⟩ — Fig. 2: Fragment of a dalmatic ⟨a Kind of tunic⟩ from the 16th century. ⟨Collection Spitzer.⟩ — Fig. 5: Carpet with silk- and gold embroidery on velvet-ground, Portuguese work from the 16th century. ⟨Collection Spitzer.⟩ — Fig. 7, 8, 9, and 11: Spanish silk weft. ⟨Fischbach, Gewebe.⟩ — Fig. 16: Spanish embroidery from the 16th century. ⟨Collection Spitzer.⟩

GROTESQUE ART.

With grotesque art we usually mean something stupefying, queer, or eccentric; in the 17th century the irregular pearls also were called »baroque« from which small grotesque figures were made. Therefore it is no wonder that the later classicist period employed this expression for this epoch of art being incomprehensible to it. For the works of art that had been produced then necessarily afterwards seemed to be queer, whilst it was just the modern art for its contemporaries. But this expression is hitting the essence of this idea, marking out, however, only one side of it, consequently in the true sense of the word it is more fitted for the later Rococo.

In contrast with the calm harmony of classicism and of Renaissance here liveliness and agitation are prevailing, that in Rococo increase to conscious exclusiveness. Classicism as well as Renaissance are calming down feeling, but grotesque art does not admit the mind to come to reason. Considering the forms of classic antiquity, of Renaissance, and of classicism we can keep our cool understanding and nevertheless feel satisfaction with the tasteful paraphrase of apportionment of vigour and load, with the graceful allusions of the pure ornament, whereas grotesque art considered with cool reason remains without any effect. Consequently it is its principal task to get over understanding, even to surprise it by sudden power and by means more and more strengthened to let not attain awaking anyone accommodating without a will. Grotesque art is an autosuggestion, being, it is true, not a general one; for many members of the European family of nations have not been affected at all by it.

In Renaissance, partly in nothern Late-Gothic, too, the more reasonable conception of the possibility of obtaining the absolute harmony of all the manifestations of life got the upper hand of the medieval one to shift the centre of gravity of life to an unknown world. Consequently the approaching to antiquity had to appear quite natural, for in this period men were thinking in the same manner. When Church was divided into Catholicism and Protestantism, the northern nations, especially the Calvinistic ones took the continuance of Renaissance-movement corresponding to their cool and sensible kind of comprehension. In catholic countries things were also going on, it is true, but not equably in all classes of the people. Men do not intend to understand all, but with a certain fervour gave themselves up to the dark thoughts of the endless, incomprehensible and inexplicable, and yet eternally living. For this reason something servile, heavy and oppressed enters the artistic forms to which something stirring up, nearly violent is joining. This oppressed life is a mark of early grotesque art and of Late

Renaissance preceding it. Thus the heavy pain of Michelangelo's figures is resignation in despair, as well as the disorderly architecture of his figures dating from later time; the same is the case with forming ears and cartilage in architecture and especially in ornamentation, displacing the clear profiles of Renaissance. In connexion with this are the artists, too, working from the dark to the clear, the so-called cellar-light-painters exhibiting the same striving for the impenetrable from which only single things are shining forth.

After grotesque art having entered victoriously Italy, Spain, South- and West-Germany, Belgium, the contrasts are bounding against one another in the Low-Countries, where is the limit between German and French tribes. Here by Roman clergy and Roman gentry a cultural romanizing is set going, whereas France on account of her interior dismemberment still is standing aside. The contrast between the catholic and aristocratic Belgium and the Calvinist and middle-class Low-Countries is personified by Rubens and Franz Hals.

In its beginning, grotesque art has something heavy and pressing down about it, but in the second fourth of the 17th century the place of oppressive feeling is taken by the sentiment of enchanting, excited enthusiasm, of indulging in a new acquired world of feeling and art of supernatural greatness, vigour, and liveliness. From the later 16th century, Italy, although being in reaction with regard to political economy is the leading country, whereas France for reason of her supremacy obtained by Louis XIVth comes to the front as to art too, whereby finally northern Europe, especially England and northern Germany, to a certain degree become accessible to grotesque art; this fact probably was a consequence of the gradual making worldly the Italian grotesque art that originally was purely ecclesiastical. Of course, in northern Europe numerous elder traditions are to be felt and have a transforming influence on the forms of Italian grotesque art. This art often was treated with a great disdain; therefore its researching exhibits many omissions, but it is especially difficult to give an exact picture of grotesque art on German ground on account of the dismemberment of Germany with regard to religion and politics. Moreover, the Thirty Years' War even in the first period of development, pauverism and brutalization, in Austria, besides, the danger of Turkish invasions paralysed every independent production. In these circumstances, there was not to be thought of a homogenous development of art. However it is astonishing that Germany in spite of her political dismemberment in political economy and culture has so fast taken recreation of the consequences of the Thirty Years' War. Generally we can say that then South-Germany and -Austria was influenced from Italy, her north from the protestant part of the Low-Countries. Cartilage-style even in

Germany has farther developped than in the Low-Countries. The eldest example for it in northern Germany is the Jesuit Church, Cologne, 1627; in epitaphs and doors of churches, too, between 1640 and 1660 such forms are to be found. From Early grotesque art, however, we can state no French influences. Forms of Renaissance, chiefly Tuscan columns, in architecture, in furniture, too, are to be found far up to the 17th, even to the 18th century. Consequently we may attribute German art a good deal of conservatism, which principally is to be carried to the credit of the existence of the guilds.

The French Ornament.

Plate 47: Decoration of rooms from Louis XIVth's time.

Fig. 1 and 2: Painted boarding in the Museum of Decorative Arts, Paris. ⟨Ewald, Farbige Dekorationen.⟩ — Fig. 3 and 5: Wall- and ceiling-decoration in Institution Pompée, Ivry sur Seine. ⟨Daly, Motifs historiques.⟩ — Fig. 4: Ceiling-decoration from the throne-room, Fontainebleau. ⟨Ewald.⟩

Boule-Furniture.

Since two hundred years Boulle-furniture is generally well renowned. But chiefly it is to be met with only in museums and rich private collections; where such a piece is offered for sale, connoisseurs bid up prices for it to an immense height. As to André Charles Boulle beside his personal intelligence and artistic skill different circumstances still are to be accounted which permitted him to display his genius and to produce the masterworks he left. Of a great influence also was the excessively luxurious period in which he lived as well as the fact that just in this epoch in which he entered his career, a complete transformation in French furniture-decoration took place.

The furniture being usual in France till then exhibited simplicity and coarsness, consisting chiefly of chests and cupboards that were visibly put together in rectangular boards without garanting the solidity of the piece in question, often held together by overcharged metal-mountings. In order to hide these mountings, furniture often was coated with oil-colour, sometimes even upon a linen stretched over it. But already towards the end of the 14th century, a transformation of the greater pieces of furniture, imitating the original architecture, began to develop ornamentation from the surface. The hollow space was displaced by a groove corresponding to the stability of the piece, into which the casings for enclosing the hollow space were put in. This transformation increased not only its stability, but also its pleasant exterior. Putting on casings of course caused the employment of rich staff-ledges. But for a long time, up to the 16th century, colour was still used; for producing a bright splendour of colours parts of furniture also were covered with vivid stuffs. But with this the difference between decoration and surface was dissolved. Decadence began.

Under the reign of excessing luxury dominating then, so pompous furniture was made that it could be no more considered as utensils, but only as pieces for shows, which is the single fault of Boule-furniture. André-Charles Boulle was born at Pasis in 1642, being the son or grandson of the known court-cabinet-maker Pierre Boulle probably native of Neuchâtel.

But the style of Boule-furniture is not at all Boule's invention, for already in the 14th century similar coffer-work with incrusted ivory came forth, mostly of oriental origin, consisting of dictums from the Koran, rounded by graceful arabesques. Likewise at this time in France marquetry was used very much, then there was even furniture adorned with marquetry imported from Spain, Italy, Flanders, and from India.

For making these precious marquetries at first plates of wood, mother-of-pearl, tortoise-shell, tin, or copper are prepared in the same thickness. Then two plates are glued each upon one another, and the decoration to be obtained is cut out with a fret-saw, whereby two matrices are won, or woods of various colours according to certain designs are cut out such as to cover one another. It is to be considered as a great distinction for Boule that he being of the age of 29 years already got his dwelling in the Louvre as a court-joiner. The number of these artists favoured in this manner was only very small. There exists no authentic news that before his removal to the Louvre he has executed important works for the king, for only in 1669 his name is mentioned in the invoices of the royal house, but his most beautiful work during this time was the cabinet for the dauphin. It is hardly credible that the pieces of Boule-furniture after a short time, after having got seriously damaged on account of the moisture in the Louvre and being already a little out of fashion, were brought to the Garde-mobilier (i. e. a depository of furniture), the costs for their restoration being avoided. On the 20th of August 1720 on the carpenter Marteau's timber-yard, a fire broke out which with such a rapidity was transmitted to Boule's workshops and dwelling that not even his art-collections might be saved with few exceptions. There existed twenty workshops, two for joiners and eighteen for ebonists; besides he still employed six chasers. Of a high value, of course, was his depository of wood as well as his collection of models of antiquarian statues; according to his statement the damage was amounting to 208 570 livres. Thus Boule at an advanced age lost his art-collection of copper-engravings and drawings carefully chosen and collected with a great love during his whole life and kept in large cabinets. As to finances, Boule was not lucky; it even came to his being forced to hire a dwelling outside the Louvre in order to be secure from his creditors; after a short time actions even were brought to court against him by his workmen and customers. As it always happens in such cases, he more and more rapidly was on the decline. In March 1732 Boulle died, 90 years of age after having seen his talent respected and his merite duly estimated until his last breath.

He left four sons: Jean-Philippe, Pierre-Benoit, Charles-André, and Charles-Joseph, who had all the same profession; two of them worked together with their father in the Louvre and had got the succession in using their father's dwelling; both the others established themselves outside. Pierre-Benoit left the Louvre between 1720 and 1725 and established himself in Faubourg St.-Antoine, but he seems to have always lived in very straitened circumstances and died without descendants. The most talented of these brothers was Charles-André who in order to avoid being mistaken for his brothers caused to be called Boule de Sène, as he lived in Rue de Sèvres then written Sène. Born on the 11th of December 1865 he had had a good education and attended to the Academy getting several decorations. He already died in 1749 without having come to easy circumstances, for already before his enterrement a distress was levied upon him. The last brother, Charles-Joseph, was born on the 29th August 1688 and was always occupied with his father in the Louvre, but he, too, could not succeed in coming to good circumstances; like his brother he died without having posterity. Thus ends this family once promising so much.

Plate 48: Boule-furniture.

Fig. 1 and 3: Furniture from the Garde-mobilier in Paris. ‹Procinet, L'ornement polychrome.› — Fig. 2: Cabinet. ‹Drawing-copies of Kunstgewerbebibliothek, Dresden.› — Fig. 4: Table in Reiche Kapelle of the Royal Castle, Munich. ‹Enzler, Zettler, and Dr. Stockbauer, Ausgewählte Kunstwerke aus dem Schatze der Reichen Kapelle der Königlichen Residenz, München.›

Fayence during the time of grotesque art in France.

Together with the gradual decay of Renaissance-ceramics during the 17th century in France ceramics also sank down to the level of pottery-work for daily supply. Nothing but the delivery of utensils forced by Louis XIVth's edict (and his own example), to the public exchequer raised ceramics of art again to a flowering condition, as after this all dinner service had to be displaced by utensils made of fayence. Thus about 1600 by Duke Charles de Gonzaga the noble family de Conrade is transplanted from Savona to Nevers, where it founded a ceramic workshop which for several generations remained in its possession. Already in 1632 by Barthélemy Bourcier in 1652, by Nicolas Estienne, and Pierre Custode other workshops were established.

Ceramic art in Nevers as to its decoration may be divided into 5 epochs (its form has changed only little):

1. Into the decoration according to Italian models, 1600—1660;
2. according to Persian models, 1630—1700;
   according to Chinese and Japonese models, 1600—1750;
   according to French manner, 1640—1789;
3. according to the model of Rouen, 1700—1789;
   according to the model of Moustiers, 1730—1789;
4. according to the waxen model, 1770—1789;
5. into the decadence since 1789.

Especially renowned were the figures of saints and paintings in blue of Nevers as well as the imitations of Persian, Chinese, and Japonese ceramics which were succeeded by the imitations of fayence of Rouen and Moustiers so that we may hardly suppose an art being original in Nevers to have existed.

More important, no doubt, was the ceramic manufacture of Rouen, where the workshops of the families Poterat, Guilliband and others in the middle of the 17th century raised this art to a flowering state, in its beginning, it is true, having reminiscences of Italian and Dutch ceramics. But here at the end of the century an original style developped that is called by the Frenchmen stile rayonnant or décor à la ferrouerie. This style (blue drawing on white ground) reminds of laces, haberdashery, embroideries on drapery, book-ornaments, marquetry etc., but in principle it is nothing but an imitation of the drawings of Etienne de l'Aulue, Theodore de Bry, Virgilius Solis, Beham and of others. The composition of this fayence was strictly symmetrical, mostly stretching from a centre to all sides, therefore called stile rayonnant. But according to the then fashion Persian and Eastasiatic motives often come forth, especially the motive of the horn of plenty, being, as known, of oriental origin; the addition of flowers, plants, rocaille-ornaments, birds, insects etc. gradually deprived this style of its original character, but it maintains its symmetry even more than is models from China or Flanders. When people had to be bent on diminishing the price of fayence, they used artists being less endowed and cheaper and tried to hide the bad drawing by polychromy.

In Southern France the chief places of fayence-technics were Moustiers and Marseille. The works of Moustiers in the beginning were blue on white ground, afterwards also polychrom and so good, that they were imitated in Rouen and Nevers. The fayence of Marseille also was many-coloured from its beginning and exhibited a very delicate moulding.

Plate 49: Majolica of French grotesque art.

Fig. 1—4: Plate from Rouen. ⟨Histoire de la fayence de Rouen.⟩ — Fig. 5: Jug of vinegar from Rouen with escutcheon of bishop Froulag-Peffé de Maus. ⟨Histoire de la Fayence de Rouen.⟩ — Fig. 6: Plate in Persian taste from the end of the second and from the beginning of the third period. 1650—1680. ⟨Broc de Segange, La Fayence et les Fayencistes et les emailleurs de Nevers.⟩ — Fig. 7: Chimney-ornament from Rouen. ⟨Histoire de la Fayence de Rouen.⟩ — Fig. 8 and 10: Plate from Rouen. ⟨Histoire de la Fayence de Rouen.⟩ — Fig. 9: Holy-water font, attributed to the painter of figures Rodrigue de Duplessis. 1734. ⟨Broc de Segange.⟩ — Fig. 11: Salt-cellar from Rouen. ⟨Histoire de la Fayence de Rouen.⟩ — Fig. 12: Ornament from a square majolica-plate from Rouen. ⟨Histoire de la Fayence de Rouen.⟩ — Fig. 13: Tureen from the second and third period in Persian taste. ⟨Broc de Segange.⟩

The German Ornament.

Plate 50: Metal vessels.

(*Gruner*, *The Green Vaults in Dresden.*)

Fig. 1: Vase made of a rock-crystal from the 17th century. — Fig. 2: Dish made of jasper with the inscription: „Vas aux ⟨?⟩ jaspide antiquum Alexandriae Aegypti repertum tali Ornamenti dignum" ⟨i. e.: An old dish made of jasper found in Alexandriae in Egypt, being worth such an ornament. — Fig. 3: Dish consisting of calcedon with lid made by Melchior Dinglinger. — Fig. 4 and 6: Grotesque figures made of deformed pearls by the Leipzig jeweller Ferbeck from the end of the 17th century. — Fig. 5: Nautilus-dish of unknown origin. — Fig. 7 and 8: Nautilus-dish as drinking-cup.

Dutch fayence.

From times immemorial the technic of glazed tiles was a chief part of fayence-technics, but for a long epoch, it is true, being completely neglected. People soon had recognized the advantage that glazed bricks offered for those parts of buildings which were frequently exposed either to weather, to the moisture of earth, or to attrition. By seeing that clay in the thin walls of vessels had relatively a greater toughness and solidity than the much thicker tile, it occurred to people to substitute thin glazed plates for the latter. Especially in the orient using fliezes was generally spread and after a short time transferred to the countries of the Mediterranean, especially South Italy, Spain, and Portugal. Already in the 13th century in Europe, too, north to the Alps glazed toned plates come forth, the manufacture of which up to the time of Renaissance was gradually perfectioned. Using glazed toned plates cannot be very old in the Low-Countries, as in the later middle ages houses were still built of wood, caulked, pitched and covered with tar like ships; consequently they had no place for setting in flag-stones. Only in the pictures of Dutch painters of the 15th century we find represented floors made of glazed tone plates, whitish-grey with blue design quite like the later wall flag-stones.

Dutch fayence too distinctly exhibits Japonese influence as to be cleared from its having developped according to Japonese models. The East-Indian

Compagny founded in 1602 had promoted very much the commerce between the Low-Countries and the East and so much the more as in 1640 the Spain and Portuguese were driven out of Japon and the Low-Countries obtained the monopoly there. From the same time date the first attempts in Delft, the chief centre of Dutch fayence-technics and successively the commercial beginning of this industry. On the 29th of May 1611 St. Lucas' guild was founded there, the book of the masters of which begins with eight master potters or pasteelbackers. The most important of them were Hendrick Gerritoz and Hermann Pietersz, who consequently are to be considered as founders of this industry in Delft. To this guild to which according to its charter still existing quite special privileges had been granted there belonged the oil- and water-painters, the painters, the glass-engravers, the potters, the upholsterers, the sculptors, the case-makers, the printers of works of art, the publishers and dealers in pictures. Within this guild for fayence-manufacture there was a special committee of three members for porting improvements into this manufacture and for the administration of the common purse to which each potter had to attribute as soon as he had kindled an oven. This committee together with the magistrate in 1669 also settled the precautions against large fire to be taken in burning as well as the construction of burning ovens. Likewise an exact list of their trade-marks used by the potters was stated. Towards the end of the 17th century a considerable emigration of journeymen seems to have happened, as the magistrate forbade the reengagement of journeymen who had emigrated and came back, and prohibited every assistance of their families.

But already at the beginning of the 17th century flag-stone-manufacture, probably on account of the frequent business-relations with the East, in Lisbon, as well as in Spain was on a very high degree. A lively connexion of commerce existing between the Iberian peninsula and the Low-Countries, it is impossible not at all that the origin of Dutch flag-stone manufacture is to be searched there, the much more as the Low-Countries, as you know, for some time belonged to Spain. An active part in this transplantation may also be attributed to the Jews expulsed from Spain. Another token for this supposition is the remarkable indentity of colours of the Dutch and Iberian flagstones.

During the first period of about 50 years the ornamentation of Delft fayence was clumsy and overcharged. Its chief motives were agglomerations of persons framed with garlands, leafwork, flowers, fruits, putti, and horns of plenty, cameos with rather dark, mostly brown-violet outlines. Sometimes polychromy, too, is used, but without any principle, chiefly consisting only of yellow tones with red points. There existed a great resemblence with the fayence of Nevers. Hendrick Goltsius' pictures in Harlem are a laudable exception of them. In 1650 a great revolution in Delft fayence industry took place. The more or less good decorators had to give way to excellent painters, the simple potters to experienced manufacturers. A mark on how weak foundation this industry stood before 1640, is the fact that from 1611 to 1640 according to the book of masters of this guild only 8 pasteelbackes passed the master-examination, whereas between 1651 and 1660 more than 20 new masters were appointed, in 1660 ten, in 1662 six. This is a secure mark for the high flight that industry took in these years, caused by abundance of funds being at disposal, by the pouring in of workmen dimitted elsewhere, but first of all by the instigation of prominent men being, it is true, not natives of Delft itself, such as Aelbregt de Keizer, Abraham de Kooge, Frytom, Fictoors, Kleynoven, Hoppestein, Einhorn, Pynackers and others. Delft fayence became famous throughout the world; orders were given in large numbers so that 26 manufactories could soon be set in motion. But most Delft fayence-industry was promoted by Abraham de Kooge and Aelbregt de Keizer; the latter especially knew how to imitate Japonese porcelain. The former however in his products tried to express the real essence of fayence with a milky tin-white glazing, with fixed outlines, but tender half-tints and thus produced those wonderful plates made cameolike that may not be surpassed with regard to artificial relation. As well as this artist F. V. Frytom, too, in his fayence preferred cameo to polychromy and principally in his landscapes produced veritable master works. Of good, nevertheless inferior masters are to be mentioned especially Kleftyns and Eenhoven, Pieter Osterlaan's brothers-in-law, Gerrit Pietersz and others; the latter produced quite a particular ornamentation according to Japonese models with persons fancifully dressed, Chinamen with elephants, all in an admirable drawing. The most beautiful polychrom products were produced by Wonter and his son Lambartus in comparison with the latter Louis Fictoor may be considered as his equal with regard to elegance and careful performance. This flower of fayence-manufacture, no doubt, is closely connected with the flower of Dutch painting and of Dutch oversea commerce. At the beginning of the 18th century Delft fayence-manufacture had to suffer a new transformation. Till then fayence was an article of luxury which was within the reach only of wealthy people, but on account of its high price remained unattainable to the poor classes that were obliged to make tin vessels do. Probably on account of overproduction, competition soon asserted itself, and to this one true art cannot resist. This overproduction considerably forcing down prices, manufacturers then had to adapt their products to the taste of their new customers being less wealthy and to their wants. With this fayence ceased to be an art and became an article of trade. This decadence of art, it is true, went on very slowly; besides, cameo-painting being unique of its kind, was substituted by other remarkable things such as foot- and hand-warmers shaped like a prayer-book, bird-cages with all their fittings, all sorts of brushes, wig-blocks, music-racks, violins etc. Besides, there exist, to be sure, only four of the latter. Single artists, too, tried to revive the former art of one-coloured painting, such as J. Verhaagen who between 1725 and 1735 produced his finest works, but then was forced to pay his attention to production in masses. At the same time Piet Vizeer managed to give his colours in a quick fire a splendour never got till then; Gysbrecht Verhaast also was an excellent polychromist for his exceptionally complete palette. Dresden china imitated with a great success by Zacharia Dextra and J. P. Dextra called junior Dextra, had a great influence on fayence-manufacture, but these imitations were nevertheless wanting the true artistic expression. By imitating the method of burning usual for porcelain, however, many painters lost their income, for potters now got only the chief figures painted on a raw ground by good painters, then annealed and finished by inferior painters. Painting on porous clay-mass requires a great dexterity, whereas on melted flux even inferior painters can do well.

All these circumstances increased by fayence manufacture growing up in other countries too, and by spreading porcelain, of course, caused this manufacture once flowering so much to be brought to a lingering illness.

Beside in Delft, in other Dutch towns factories for fayence-manufacture existed, f. i. in Harlingen, Utrecht, Westraven near Utrecht, Arnsheim, Amsterdam and others.

For flag-stones especially figures and landscapes were preferred, scenes from the Scripture History too, but landscapes without figures are rare.

Plate 51: Dutch flag-stones.

Fig. 1—35: Dutch flag-stones.

Plate 52: Delft fayence.

Fig. 1: Plate with Frederic the Great's escutcheon from the collection Dr. Mandl, Paris. ⟨Havard, Histoire de la Fayence de Delft.⟩ — Fig. 2: Plate in the same collection. ⟨Ris Paquot, Histoire Générale de la Fayence ancienne française et étrangère.⟩ — Fig. 3: Plate in the collection of Rosot, Abbeville. ⟨Ris Paquot.⟩ — Fig. 4 and 6: Violin in blue cameo in the collection J. F. London, at the Haag. ⟨Havard.⟩ — Fig. 5: Plate in blue cameo by Friedrich van Frytom. ⟨Havard.⟩ — Fig. 7 and 9: Flag-stones with the Orange escutcheon by Piet Vizeer in the collection London. ⟨Havard.⟩ — Fig. 8: Border of a plate in the collection Dr. Mandl, Paris. ⟨Ris Paquot.⟩

The English Ornament.

Plate 53: Upholstered furniture of High and Late Renaissance.

Fig. 1: Easy chair from James Ist's time in Cartoon Gallery, Knole. — Fig. 2 and 3: Chair and back of the easy chair represented in figure 7. — Fig. 4 and 8: Chair and seat of a chair from William IIIrd's time. — Fig. 5: Easy chair in the state-room of Hardwicke-Hall, Derbyshire, from William IIIrd's time. — Fig. 6: Canopy of a bed from James IInd's time. — Couch from William IIIrd's time, in possession of Mr. Philippe Sidney, Kent.

ROCOCO.

It is striking that the real ruling the world by French art happened in the time of the declining of the political power of France. Art reaped that which politician and warrior had sown. The concussion of royal authority, perhaps King Louis XVth's fulness of splendour and luxury too, even seem to have caused the return to the proper French mind which for some time was disguised by the dazzling splendour of kingdom.

All persons grown up before the sight of Louis XIVth make the impression of not knowing how to take their ease; they were silent, timid and awkward, whilst in fashionable Paris saloons people were neither silent nor timid, but tried to make themselves comfortable and to enjoy their life. The development of convenience especially since the later times of Louis XIVth's reign, with the architects such as Hardouin Mansart and his pupil Robert de Cotte made great progresses.

Instead of pillars and pilasters on the walls of the rooms frames were put in, having partly already curved forms; the whole temper of colours becomes less pompous and lighter. The architect Cailleteau who died in 1729 and did not belong to the king's favourite artists, in his groundplans preferred smaller rooms fitted for their purpose, such as especially in the Hôtel de Sassey. The façades are delivered from the pedantry of the proper classicism. This tendency had a more rapid rising when after Louis XIVth's death in 1715 the Duke of Orleans took the regency for the minor Louis XVth and ruled till 1723. He tried to promote the industry of many circles that was paralysed, and he often succeeded in his task. But to tradition was paid no regard only by Gille-Marie Oppenort, 1672—1742, the pupil of Mansart, Bernini, Pozzo, Fuga, Envara etc., who when fitting out the Palais Royal had a favourable opportunity for freely displaying his genius. The new art developping now in France is called stile Régence. For its spreading in foreign countries most was attributed by Germain Boffrand, 1667—1754, of whom Gurlitt says: „Here Boffrand knows nothing about rules; he gives only in a purely technical manner practical instructions for the durability of ceilings made of stucco, about the impossibility of lighting up larger rooms, with wood casings in their natural tint, about the height in which the candles are to be put on in order that the eyes of the ladies are not shadowed. Academical knowledge is silent at the end of its classical models; here the artist manifests himself freely and willingly as a child of his epoch, here the æsthetic strictly working after antique patterns proves himself an accomplished master of Rococo". In the Hôtels de Soubise and de Rohan, however, he already is a master of the second period of Rococo, of Rocaille.

Beside Oppenort the most important drawers in this art were Claude Gillot, 1673—1722, Claude Audran, 1658—1739, Antonie Watteau, 1684—1721, and others. Remarkable for the genius of this epoch is the developpement of the „singeries“ (i. e. representations of fooleries of apes) introduced by Gillot further developped by Christophe Huet, who died in 1759. The most important painter of Régence-style, however, is Watteau, who was born in Valenciennes and produced admirable works of art, especially in his chinoiseries (i. e. objects of art in Chinese taste) which, to be sure, ethnographically had no relation with China goods, but in which people saw realized their dream of a happy isle full of mirth, merriment and playing grace.

The unsymmetry manifested in Rococo is not at all the single example for it in history of art. Already in Gothic style it is appearing. First of all it is naturalism, caprice, and execlusiveness in the subjects of the later middle ages that have induced to an inclination to east-asiatic models. Consequently Rococo, too, necessarily conducted to such a liking for them, as they had got to the most independent feeling nature and to the most liberal apportionment of space. Thus, as soon as Europe intended to advance in the same direction, east-asiatic art offered itself as a guide and model.

In Germany the whole course of art from Louis XIV^th^ till the victory of classicism is called Rococo, whilst in France its earliest period is called stile Régence, its later period Rocaille or Louis XV^th's^ style. The latter expression is derivated from the word „roc“ i. e. rock or stone, properly spoken stone- or shell-work used for adorning grottos, which, however, was already frequently employed in grotesque style.

In outside-architecture Rococo seldom comes forth, at the highest in decorations of doors and windows; here the equilibrium of the masses is put in the place of symmetry. Important drawers of Louis XV^th's^ style especially are: Juste Aurèle Meissonier, 1693—1750, Thomas Germain, Jean Baptiste, Lecoux, René Michel Slodtz, the most important of this family of artists, the goldsmith Babel, Boucher, François de Cuvilliés, 1695—1768, who had great influence in South and West Germany, Charles Eisen, Jean Pillement, 1719—1808.

In contrast with Louis XIV^th's^ luxurious art, in Rococo-style that is striving for liberty and nature, something negative exhibits, often becoming manifest, it is true, in a funny manner. The severe Rococo, however, is not at all the single art, but by its side other schools of art are running, either succeeding chronologically one another or being contemporary with it. For beside the high-spirited tempers there also were moderate ones that thought to find nature in moderation and simplicity, but not in lively agitation like those.

In France Rococo was no more under the influence of the court, but of larger circles, whereas in Germany it was an art of court, in contrast with Renaissance-art being favourite with the towns. It is, no doubt, evident that Germany after the storm of the Thirty Years' War tried to find support in the art of a neighbouring nation. After the Spanish war of succession, a part of the Austrian countries had approached to Italy more than to Germany; consequently in Austria as well as in South-West Germany the Italian influence comes forth very distinctly, whilst in west and north the French and Dutch element is rather superior. But by no means German Rococo may be considered as a species of degeneration of the French one. In contrast with France, in Germany a true outside-architecture of Rococo even exists, which sprang up independently from France, on the contrary, was more influenced by Italy as Pöppelmann's and Hildebrandt's works are proving. There are even such buildings in Germany which are older than Rococo in France. In France the exterior of the buildings was extremely strict, whereas fancy was not put in fetters as to the outfitting of the interior rooms. German Rococo is an unchained grotesque art. In French Rococo decoration, the fancyful ornament gets loose from construction and then is shrinking and giving way to a general dryness. In German art fancy exhausts itself by comprehending all things equally and by attaining the last beyond that no passing exists.

The new elements introduced to German Rococo are to be attributed to Fr. X. Habermann, Joh. El. Nilson, E. W. Meil. But French artists, too, often were working in Germany, especially Cuvillié. Frederick the Great also called many French artists to his court.

The French ornament.

Plate 54: Decoration of rooms.

Fig. 1 and 3: Decoration of the ministers' council-hall, Fontainebleau, executed in 1743 by Carl van Loo and François Boucher (Gehlis-Didot, La peinture décorative en France du XVIième au XVIIIième siècle). – Fig. 2: Decoration made of carved, painted, and gilded wood in the saloon of Hôtel Koquelaure, now Ministry of Public Working, Paris (Havard, Dictionnaire de l'ameublement). — Fig. 4, 6, 7, and 8: Decoration of the ministers' council-hall, Fontainebleau, executed by Pillement (Gehlis-Didot). — Fig. 5: Decoration of a room in the Hôtel Soubise from the beginning of the 18th century.

Plate 55: Sèvres-porcelain.

(*Garmir, La porcelaine Tendre de Sèvres.*)

Fig. 1 and 4: Sugar boxes. — Fig. 2, 3, 5, and 13: From a service in possession of Baron Adolph v. Rothschild. 1760. Painted by Dubois, Parpette, and Mérault jeune. — Fig. 6: Bouquet of a vase. 1757. — Fig. 7: Waterjug from the collection M. L. Watelin painted by Tandart. 1757. —

Fig. 8: Waterjug from the collection of Marquis de Vogué. 1753. — Fig. 9: Water-vessel with dish from the collection M. Barre. 1755. The dish is painted by Prevost 1785. — Fig. 10: Plate in the Museum of Decorative Arts, Paris. — Fig. 11: Plate from the collection L. Watelin, painted by Cremont. 1761. — Fig. 12: Coffee-service in South-Kensington-Museum. — Fig. 14: Plate from the collection L. Watelin. 1753.

Plate 56: Textile figures from grotesque art and Rococo.

(*Dupont-Auberville, L'ornement des tissus.*)

Fig. 1—6, 8, and 9: Lyons silk drapery. — Fig. 7: Damask.

The German ornament.

German façade-painting.

Both about the pictures in Greek temples and about painting Old-German façades people often have disputed, and even nowadays there are still very different opinions about the admissibility of polychromy in façades. But there is not to be denied that at all times colours were inseparably joined with works of architecture and sculpture, and, no doubt, the majority of the old buildings were painted with strong colours on their outside without any regard for the material they consisted of. To be sure, modern attempts of covering plaster and freestone with a coloured coat have met with violent opposition, for instance, when the New Townhall in Dresden was built. Although painting over freestone may be demured to, it is absolutely historical, especially in buildings of Early and Late Renaissance. Chiefly frame-work categorically required using polychromy, but even Gothic church-buildings in bare brick-work were painted over with these wholly foreign forms and motives. Thus the building of the manor-house in Bruchsal now obtains its former coloured coat again corresponding to its remainders still existing. Only there where freestone was of universal practice in a country, colours, of course, have to give way to architectonic reliefs.

Where people had no freestone, houses in German towns could not exhibit the feature being characteristic to stone building and far up to Renaissance time had to keep on their simple type which directly claims for polychrome painting. When Nuremberg may be considered as the real picture of a town during the middle ages, the flower of Augsburg in the 16th century may be opposed to it as a picture of Renaissance. Whilst in Nuremberg in that beautiful mixture of transition style the course of modern time becomes manifest, the fine buildings in Renaissance style in Augsburg in their interior even now prove that spirit of mediæval buildings which in spite of the great revolutions during the 16th century might not be suppressed. Even in Augsburg representing mediæval taste, brick building already manifested a sympathical simplicity and was polychrome like the posterior buildings. Consequently we may not suppose polychromy during Renaissance time in Augsburg to have been nothing but a fashionable thing imported from Italy, although with regard to the lively commerce between Augsburg and Venice we must decidedly take Italian influence into account.

The great predilection for polychromy of Gothic buildings in Italy is to be considered as an introduction of the Renaissance paintings in Italy being highly in fashion. However especially oriental influence is remarkable in them: painted carpets, manycoloured figures for the surfaces of walls between the windows and oriental-arabian tent manufacture. But this ornamentation of surfaces for its part is again in connexion with the revival by painted square stones and ornamental bindings. Likewise it is in relation with the single pictures painted on the wall, often imitating a carpet hung up.

Gradually façade-painting made itself independent from surface figures and tried to supply and to animate the architectonic structure, the decoration usual for ridge-ornaments being employed in vigorous colours. This painting even often comes near to the old painting which with a great boldness has attained effects of depths as to the whole space. The influence of this painting on the German artists is not to be doubted, but the junior Holbein still goes beyond it, shaping the apparatus of architecture so boldly with regard to the space that its relation to structure is wholly lost.

The oldest remainder of façade-painting in Augsburg is to be found in the Cathedral dating probably from Romanesque time. Already in the Gothic epoch, in 1362, the „Heilige Kreuzturm“ was painted by Hermann, native of Göppingen. Buff complained that Augsburg was so timidly working in the new art of Renaissance which he attributed to the want of good architects, and by which the strong predilection for coloured façades with an incomprehensible Renaissance-architecture was caused, as he said. But by this even was attained that the structure of houses being, properly spoken, mediæval with its simple plaster-façade created a new decorative branch of art which is to be pursued in a development of three centuries and is to be considered as a treasure of German culture. Renaissance painting was begun with painting the „Fuggerhöfchen“ (i. e. the Fuggers' court) in 1515 by Burgkmair; the front of the Fuggers' houses towards the main street was also painted by him, but unfortunately in the sixthies of the last century they had to be supplanted by new frescos by Wagner. These pictures, however, in spite of their good performance may not be brought into accord with the old Augsburg tradition and are felt too little architectonically as to be recognized constantly as façade-paintings; they already are gradually decaying too. Well conserved is the painting on the northern side of the „Hummelhaus“ (i. e. house of the humbles), a work of the Venetian Giulio Licinio in 1559, who was Giovanni Licinio's son, called Pordenone in history of art. Though being disorderly and grotesque, this painting yet in form and colour has such a power that it excited the Augsburg painters' envy; and though its architecture be without importance, this painting yet indemnifies by its forms of cartouches, animals, and plants with mythological figures of gods, all freshly invented; its technic is admirable.

But in Augsburg not before Elias Holl's activity in 1602 buildings come forth in which we can speak of a German Renaissance which is also marked in plastical façade-relief, as the townhall, the arsenal, the butchers' house and the towers of the door. In these buildings, it is true, the polychromy of the façades recedes a little to the background. One of the first painters of that time was Kager whose principal work beside frescos in the townhall was the painting of the façade in the house of the weavers' guild in 1607. The painting of the holy cross and of the tower of the „Frauentor“ is also made by him.

Neither in the 16th nor in the 17th century people had come to laying down fixed rules in which relation things of architecture and figures had to be with one another; therein still was the greatest liberty and arbitrary action full of humour, whereas plastic forms came forth only quite timidly. But in the 18th century a stronger relation gradually developped. The more independently architectural style strengthened, the more strictly painted architecture plays the part of that which might have really existed. Lively coloured figurative compositions are concentrated on surfaces of single pillars, and there where they could not be put in they are laid in free frames or freely floating sceneries of clouds, especially when allegorical or religious ideas were represented.

After façade-painting on account of the Thirty-Years' War having decayed much in Augsburg, it arose to great authority again chiefly in that epoch of art at which people looked so contemptuously for a long time, even beyond the limits of its native district and stretched to houses of peasants too. It is Augsburg façade-painting of that epoch that manifests that Rococo was not only an art for palaces, but also a popular one. At the head of the Augsburg school of the 18th century stands Borgmüller senior, a pupil of the Munich painter Wolf and of the Italian Macatti. His most important pupils are the Tyrolese Johann Holzer and the Swabian Mathias Gündter. Holzer in 1731 painted the „Gasthof zu den drei Kronen“ with its well-known „banquet of the gods“ and the picture „Ecce homo“ in the Klinkertor; the famous dance of countrymen, too, is made by him in 1708. Mathias Gündter was Asoni's pupil and Holzer's assistant, afterwards director of the Kunstakademie in Augsburg. Known too is the abbey-church in Amorbach the painting of which he finished, the façade of the Kathenhaus in Kapuzinergasse (see plate). Although

Joseph Christ when painting the Riegerhaus standing opposite the Hummelhaus have already a propensity for the new classicism, the lively spirit of Rococo in connexion with the courage for positive colours nevertheless kept on in Augsburg, before, unfortunately, it was suppressed by it. Considering these beautiful old façades we instinctively ask: Why is it nowadays rendered more difficult than in former times to make colour valid? According to Professor Friedrich v. Thiersch, modern man is so pampered and weakened that he cannot suffer any positive colour; but now artists and non-artists seem to get a new appreciation for and a new pleasure in colours. To façade-painting its being to perishable and too expensive is also reproached, and painters are blamed for their being too haughty as to change their easel for a scaffold. With regard to technics only the good old fresco-technic is to be considered, as all procedings of painting on dry stucco though being convenient bring no good results. But supposing some good intention, here too it would not be difficult, to find connexion of modern art with the old historical one without imitating the old models in a thoughtless and servile manner.

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Plate 57: Rococo-decoration.

Fig. 1: Painted panelling in Blaues Palais, Potsdam. ⟨Ewald, Farbige Dekorationen.⟩ — Fig. 2: Side of a chimney in the sleeping-compartment of the white rooms in Königliche Residenz, Munich, executed during the reign of Elector Carl Albert. ⟨Seidel, Die Königliche Residenz in München.⟩ — Fig. 3: Façade of the Kathenhaus in Augsburg. ⟨Von Thirsch, Die Augsburger Fassadenmalereien.⟩ — Fig. 4: Room painted by Watteau ⟨Watteauzimmer⟩ in the Castle of Bruchsal. ⟨Ewald, Farbige Dekorationen.⟩

Plate 58: Dresden and Berlin china.

Fig. 1: Tureen of the Schwanenservice ⟨Service decorated with swan-figures⟩ by Johann Joachim Kändler, Meissen. ⟨Lehnert, Illustrierte Geschichte des Kunstgewerbes.⟩ — Fig. 2: Dish from Frederick the Great's service. 1768. ⟨Berliner Porzellan.⟩ — Fig. 3: Vase with selected ornaments from Meissen. ⟨Lehnert.⟩ — Fig. 4 and 7: From a coffee-service in the castle of Charlottenburg. 1768. ⟨Kunstgewerbemuseum, Berlin, Heft 18.⟩ — Fig. 5: Vase. ⟨Berliner Porzellan.⟩ — Fig. 6 and 8: From a coffee-service. 1770. ⟨Kunstgewerbemuseum Berlin.⟩ — Fig. 9: Dish from a service. ⟨Berliner Porzellan.⟩ — Fig. 10 and 11: Saucers. ⟨Berliner Porzellan.⟩

Plate 59: Dresden china.

(*Berling, Das Meissener Porzellan und seine Geschichte.*)

Fig. 1 and 4: From a service for breakfest with snowball-figures. 1740. Now in Grossherzogliches Schloss Tiefurt, Weimar. — Fig. 2, 6, 7, and 8: Pieces in possession of Mr. Holländer, Direktor, Dresden. — Fig. 3 and 5: From a service for breakfeast, 1780—1790. In possession of Mr. Eugen Gutmann, Consul, Berlin. — Fig. 9: Vase in Kunstgewerbemuseum, Dresden. — Fig. 10: Waiter with pictures by Watteau in Kunstgewerbemuseum, Dresden. — Fig. 11: Vase in possession of Mr. C. von Schweingel, Dresden. — Fig. 12: Figures by Acier in possession of Mr. Dr. Friedrich, Hofrat, Dresden. — Fig. 13: Service for breakfeast with blue ground representing fish-scales in Kunstgewerbemuseum, Dresden. — Fig. 14: Figure by Acier in Kunstgewerbemuseum, Dresden.

Plate 60: Metal utensils.

(*Gruner, The Green Vaults in Dresden.*)

Fig. 1: Enamelled vessel with lid, probably a sugar-box. — Fig. 2: Vase consisting of onyx for plants with a diamond. — Fig. 3: Timepiece, the box of which was made by the jeweller Köhler, Dresden, and the mechanism of which was made by Droyot in Poitiers. — Fig. 4: Vase made of calcedon by Melchior Dinglinger. — Fig. 5: Vase made of agate with enamel and precious stones, utensils for bathing purposes, and with the portraits of the countesses Cosel and Königsmark, King August the Strong's mistresses. Its foot has the inscription: „Effronterie perd, Discrétion sert" ⟨i. e. Impudence ruins, discretion is useful⟩. Made by Melchior Dinglinger who was born in 1665 in Bibrich near Ulm and died in Dresden in 1731. — Fig. 6: Shallow cup consisting of rhinoceros horn, made by Dinglinger too. — Fig. 7: Vase made of jaspis by Dinglinger.

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